Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

Delivered at the Royal College of Physicians of London, July, 1876,

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LECTURE I.—PART VI.

ON A GREAT VARIETY OF FORMS OF PARALYSIS DUE TO DISEASE IN ONE SIDE OF THE BRAIN.

Contrast between three cases of disease of the posterior lobe, one causing a crossed paralysis, another a direct paralysis, and the third no paralysis—The posterior lobe of the brain is not a centre for direct motor nerve fibres.—The posterior lobes are not exclusively, if at all, centres for the intellectual faculties—Variety of paralytic or convulsive effects from lesion of the posterior lobe, showing that it cannot be a psycho-motor centre—Paralysis in cases of disease of the posterior lobe is an effect of irritation, and not of a loss of function of that part—Aphasia, anæsthesia, and melancholia as effects of disease of the posterior lobe.

THE study of cases of disease of the posterior lobes of the brain gives perhaps more arguments than that of other parts of the cerebral hemispheres against the generally admitted views as regards paralysis. The case of Andral, already mentioned,* which shows that a tumour between the posterior lobe and the cerebellum can produce paralysis on the opposite side, interesting as it is already in showing that a complete paralysis may be due to disease in a part not belonging to the voluntary motor apparatus, becomes still more valuable when we contrast it with two cases, in one of which a tumour between the *right* posterior lobe of the brain and the *right* half of the cerebellum produced paralysis of the *right* limbs†—i. e., a *direct* paralysis, and therefore the reverse of what occurred in Andral's case,—and another in which the posterior lobe, the cerebellum, the crus cerebelli, and the pons Varolii on the left side were diseased without paralysis of the limbs on either side.‡ These three clinical facts show that in cases of a lesion of one of the posterior lobes there may be no paralysis, or, if there is paralysis, it may appear on the side of the lesion or on the opposite side. If it is said that it was the cerebellum which caused the paralysis on the side of the lesion, I will answer that, if so, there should have been a paralysis on the side of the lesion in Andral's case as well as in Sieffert's, and that a direct paralysis (and this may be said of any other kind of paralysis) in cases of disease of the cerebellum is just as much in opposition to the admitted views as is a direct paralysis in cases of disease of any part of the hemispheres. There should be no paralysis of any kind in diseases of the cerebellum or of the posterior lobes.

Blandin and Jobert de Lamballe,§ have put forward the supposition that there is a set of conductors for voluntary movements not decussating in any part of the medulla oblongata or the brain, and having the posterior lobes as their centres of action, so that a lesion of one of those lobes must produce a direct paralysis. It is true that there are a number of such cases recorded by Blandin, Jobert, Saucerotte,‖ Stiebel,¶ Mangiagalli,** Dégranges, Rostan, Mr. Callender,†† and other observers. But it is clear that this view cannot be maintained—first, because a paralysis due to such a cause, destroying only one part of the centres for voluntary movement, should never be complete, and it has been so in some at least of these cases; secondly, because there are many cases of crossed paralysis from disease of one posterior lobe (and by far more than there are of direct paralysis); thirdly, because one of the posterior lobes may be diseased or even destroyed without any paralysis. This last point I will show fully in another lecture, contenting myself now with the mention of that remarkable case seen by a distinguished French surgeon, Professor Richet,* in which no paralysis (indeed no cerebral trouble whatever) occurred, although an enormous abscess occupied almost the whole extent of the right middle and posterior lobes.

Against facts showing that a considerable alteration or the destruction of one of the posterior lobes may exist without paralysis, it cannot be said that in some individuals one posterior lobe may act for both, as there are cases, as I will show in another lecture, of considerable disorganisation of both posterior lobes without paralysis. I will now refer to one case of Dr. Leslie's,† in which two vast abscesses occupied these lobes and caused neither paralysis nor a diminution of intelligence. The persistence of the intellectual faculties in this case as well as in a number of others, shows that the posterior lobes have not, at least exclusively, the function attributed to them by G. Neumann‡ and Prof. W. B. Carpenter.§

As a conclusion to what I have stated as regards the posterior lobes, I will say that the universally admitted doctrine that paralysis from brain disease is an effect of the loss of function of the part where an autopsy shows a lesion in the brain is in absolute opposition to a great many facts relating to those lobes. If those lobes do not belong to the voluntary motor apparatus, why is it, then, as is so often the case, that a paralysis of one arm or hemiplegia will appear when disease exists in one or in both of them? Why, also, will there be convulsions so frequently in cases of disease in one of those parts of the brain? If those lobes do belong to that apparatus, why is it that sometimes there will be paralysis and sometimes not? and if paralysis occurs, why is it that instead of being always, as it should be, on the opposite side to that of the lesion, it will, and rather frequently, appear on the same side? Why also will there be cases of great irritation of one or both of those lobes without any convulsion, while in other cases there will be general or unilateral convulsions, and sometimes on the corresponding side, sometimes on the opposite side to that of the lesion? And why besides will there be sometimes, instead of paralysis or convulsions, a cataleptic state or a general tremulousness or rigidity?

All these questions cannot be answered by persons holding the views I try to disprove, and they are answered easily by those who begin now to accept the views that I propound, and according to which paralysis, like convulsions, may appear in cases of disease anywhere in the brain by a similar mechanism to that of their apparition, when an irritation of peripheric nerve-fibres in the bowels or elsewhere produces paralytic or convulsive symptoms. I will now sum up what I have already stated by saying—first, that if the posterior lobes belonged to the voluntary motor apparatus they should always, when diseased, cause paralysis, and they should never produce it complete—two features to which facts very frequently give the lie; secondly, that if they do not belong to that apparatus they should not, according to the received views, give rise to paralysis, and they generally do when diseased. The ultimate conclusion that flows out from all this discussion is that paralysis, when caused by a lesion of the posterior lobes, is not due to the loss of function of the part diseased, and must depend on an irritation starting from that part, and propagated to other parts of the nervous centres, which are then modified so as to cause a loss of voluntary movement.‖

* THE LANCET, August 26th, 1876, p. 280, 2nd column.
† Essai sur Tumeurs du Cervelet, par G. Sieffert. Thèse de Paris, 1872, p. 18.
‡ Dumont, in Bulletins de la Société Anatomique, 1860, p. 203.
§ Etudes sur le Système Nerveux, par Jobert de Lamballe, Paris, 1838, p. 455.
‖ A case of abscess between the right posterior lobe of the tentorium, in Prix de l'Académie de Chirurgie, vol. iv., p. 32.
¶ In Ladame's work already quoted, No. 240, p. 213.
** In Hayem's Revue des Sciences Médicales, 1875, vol. v., p. 528.
†† For these last cases and some others, see my Lecture in THE LANCET, January, 1876.

* In Thèse par A. Chaumpeanr: De l'Affection Tuberculeuse du Rocher, Paris, 1862, p. 29.
† Bulletins de la Société Anatomique, vol. viii., 1833, p. 63.
‡ Quoted in Dictionnaire Encyclop. des Sciences Médicales, Première Série, vol. xiv., 1873, article Cerveau, p. 200. The ground of Neumann's view is that senile atrophy attacks chiefly the posterior lobes.
§ Principles of Human Physiology, eighth edition. London, 1876, p. 741. The principal ground of the eminent author of this most excellent work is that the posterior lobe in the mammalian series becomes more and more developed as we ascend that series.
‖ If I were to give a statement of what we know about the posterior lobes of the brain I should have to show that that part, contrarily to the

Continuing the examination of cases of disease of parts of disease of the brain not belonging to the voluntary motor apparatus, and nevertheless able to cause paralysis, I have to speak of some parts of the middle and of the anterior lobes and of the cerebellum. It is difficult to say that disease existing in the anterior or the middle lobes does not strike parts employed in voluntary movements. We know that disease in the centrum ovale will rarely produce a persistent paralysis, and we know, on the other hand, that sometimes it will cause no paralysis at all, or only an incomplete and transient paralysis. Facts have recently been published with the view of showing that when disease exists in the centrum ovale, and does not affect the so-called psycho-motor centres, or the motor cerebral ganglions, or the internal capsule, or other parts of the motor tract, it is borne without causing paralysis. It is forgotten that in some parts at least of the white substance of the cerebral lobes—those which unite the supposed psycho-motor centres with the base of the brain, there must be conductors starting from those centres, and that, therefore, any fact showing that those parts can be diseased without paralysis may be contrary to the supposition that there are such well-defined centres. For a reason of the same kind there is not a very great value in facts showing that a disease of the centrum ovale can produce the ordinary crossed paralysis. But there is considerable value against the admitted theories in cases like those of Dr. E. C. Seguin* and of Dr. Dechambre,† in which a cyst in one case, a softening in the other, were found in the *right* centrum ovale, and were the only lesions existing to explain a *right* hemiplegia—i.e., a *direct* paralysis.

ON CHRONIC ULCER OF THE STOMACH.

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(*Continued from p. 280.*)

CASE 4.—Caroline T——, aged twenty-four, single, a domestic servant, was admitted to the infirmary April 19th, 1870. She was well formed, muscular, and her general aspect did not indicate any important disease. She stated that some years before she began to have attacks of sickness with occasional vomiting, and these attacks would continue for two or three months, and then pass off. In November, 1868, she became an inmate of Guy's Hospital, and remained in that institution five months. She was discharged as cured, but was warned that the disease might return. In August, 1870, she became an out-patient of the Tunbridge Wells Infirmary, under the care of the then house-surgeon, Dr. De Havilland Hall. The leading symptoms of her complaint were constant nausea and occasional vomiting. The ejected matter sometimes contained blood. On examination at that time there was no marked epigastric dulness, but on circumscribed pressure pain was felt at the stomach, and sometimes this pain radiated through into the back. The appetite was impaired, the bowels were confined, and the tongue was covered with a whitish fur. Pulse and temperature normal. She was treated with a variety of remedies, such as opium, prussic acid, bismuth, alkalies, bitter infusions, and counter-irritation. The diet was carefully directed, and no solids whatever allowed. She made no progress, and at length was admitted as an in-patient into the infirmary. On admission she still complained of pain on moderate pressure being made at the epigastrium. She was also harassed with nausea and occasional vomiting. She was kept in the recumbent position, and various remedies in turn were tried. She derived the most benefit from small and regularly-repeated doses of opium, with the sulphate of copper, in the form of pills. The bowels were acted upon by aqueous extract of aloes in combination with the extract of belladonna. She lived chiefly on soup, crumb of bread, milk, and farinaceous food, lime-water being given with the milk. Under this treatment the sickness and vomiting gradually declined, she could digest more food and had less pain on pressure being made over the stomach. In the latter part of June she sat up for a few hours during the day, and was allowed a small quantity of mutton with some well-cooked vegetables. Her progress now became quicker, the nausea seldom occurred, the vomiting had entirely ceased, and she could bear pressure at the spot where before she always had more or less pain. On July 20th she was discharged, looking healthy and well. Appended to the above particulars of this case in my note-book is the remark that "continued rest in the recumbent position, and the strict rules observed respecting her diet, were most likely in this patient of more service than any medicines which she had taken."

CASE 5. — This example is one of much interest, and exceptional in this disease. W. I. C——, a house-painter, aged thirty-six, of fair complexion, and not emaciated, was for several weeks during the summer of 1868 an out-patient of the Tunbridge Wells Infirmary. He applied at the institution for what he termed a "stomach affection," which was characterised by some pain after meals, which extended through the epigastrium into the back; and he stated that he had occasional attacks of sickness and vomiting. Four years previously he had suffered from painter's colic, which was followed by lead paralysis in both arms, and in each had the kangaroo drop. Three years previously, he had for some time been much troubled with nausea, and then not unfrequently vomited his food. From the last-named illness he gradually recovered, and continued in tolerable health, with the exception of sometimes suffering from pain in the stomach, accompanied with a feeling of sickness. In the latter part of July, 1869, these symptoms became worse. I then examined him, when gastric tenderness was felt on pressure, but no tumour or any indurated enlargement could be detected on careful manipulation at any part of the epigastric region. He was treated in the ordinary manner, and carefully dieted, but without any marked relief. On the 13th of September he had unusual pain after a meal, the vomitings were frequent, the acid eructations incessant, and it was but too evident that his complaint became worse. In the evening of this day, the house-surgeon, Dr. De Havilland Hall, was hastily summoned. He found that the patient had vomited nearly half a chamber-utensilful of dark blood mixed with coagula. The patient said he felt very faint before the vomiting came on. The skin was cool, the pulse feeble, and there was a tendency to syncope. Gallic acid in full doses and iced water were ordered. On the morning of the following day it was reported that he had passed a good night. He felt comfortable, with the exception of a feeling of nausea. The bowels had been moved, and the dejection was of pitchy blackness, evidently caused by the great admixture of blood. He was ordered prussic acid, with a little bitter infusion; some bland nutrients, small quantities of which were to be given at short intervals; and rest in the recumbent position was enjoined. About nine o'clock in the evening he had another and most alarming attack of hæmatemesis, the floor and bedclothes and bedding being drenched with blood. The patient was rendered rapidly prostrate. The pulse became small and compressible; the skin was cool; there was no pain; and the mind remained clear and collected almost up to the time of his death, which occurred eleven hours after this his last vomiting of blood.

Autopsy, thirty hours after death.—Features and surface of almost marble whiteness, and the body did not appear emaciated. Thoracic organs healthy, but exceedingly bloodless, the cavities of the heart and great vessels being utterly empty. On opening the abdomen a small quantity of dark sanguineous-looking fluid was found in the sac of the peritoneum. On removing the stomach, it contained

doctrine of localisation which is generally received, is often the cause of aphasia, as established by valuable cases of Dr. Bateman, Cornil, Troisier, Chairon, Guéniot, Andral, Hérard, and many others. I should also have to show—which would be easy—that the posterior lobes are not the centres for the perception of sensations, as Meynert, Betz, and others believe, and as we are led to admit also from the supposition so ably maintained by Veysnère, my friend Professor Charcot, and Dr. F. Raymond, in his important paper, entitled "Etude Anat. Physiol. et Clinique sur l'Hémichorée, l'Hémianesthésie," &c., Paris, 1876—a supposition according to which the posterior part of the corona radiata would be composed of the fibres employed in conveying sensitive impressions. I should, besides, have to show that the view of Schrœder Van der Kolk, accepted by Ladame and Dr. D. Ferrier, that diseases of the posterior lobes cause melancholia, is not always in harmony with facts. The view that the posterior lobes are the centres for the upper limbs I shall speak of hereafter.

* Quarterly Journal of Psychological Medicine (New York), January, 1868, p. 109.

† Bulletin Clinique (Paris), 1835, vol. i., p. 114.

some dark coagula. At the greater curvature, and nearer the pyloric than the cardiac end, a round cleanly-punched hole, the size of a fourpenny piece, was discovered. On washing the organ and carefully examining the place where this solution of continuity had occurred, the mucous and muscular coats showed a crater-like ulceration. The edges of the ulcer were smooth, rounded, vascular, and elevated above the surrounding tissue. Its narrow apex and funnel-shaped basic expansion towards the mucous surface, when carefully looked at, seemed in terrace-like irregularities, and an amorphous or finely granulated substance covered these strata of the tissues. The subperitoneal cellular formation was augmented in thickness, being rendered more firm by an adventitious and infiltrated product. At about three lines' distance from the elevated annular margin before described was a finely injected zone, which did not rise above the mucous surface. Examined on the peritoneal aspect this perforation was clean at the edges, as if incised, there being no ragged line, nor any lip-like protrusion, which would have marked the difference had the opening resulted in cadaveric rupture. In cadaverous slit there is no internal thinning and bevelling off of the inner coats—the rent has the appearance of an ordinary tear. Not far from this place of ulceration were seen two other smaller ulcers, in which the morbid process was less advanced. Not a trace of peritoneal inflammation existed either in the stomach itself, or in any neighbouring parts. The solid organs on being incised were notably pale. No other indications of disease were anywhere revealed in the abdomen.

CASE 6.—The last example now given, and in which it is presumptive that there was gastric ulcer, was in the case of Mrs. B——, a married lady, aged forty. This patient was born in India, and had passed her childhood there, but since then she had not been in that country. She was rather inclined to be stout than the contrary, and, upon inquiry, the catamenia had not for some time been regular. I was first requested to see this lady in December, 1873; she then looked pale and anæmic, and I was informed that she had been more or less an invalid for some years. The thoracic signs were normal, but, on examining the abdomen, I discovered the spleen to be exceedingly large; it depended below the costal edge; the line of dulness could be traced up above the upper margin of the eighth rib, and, on placing the tips of the right hand fingers at the sulcus formed at the outer border of the dorsal muscles, and the ends of the left hand fingers being pressed in the epigastrium, and on a gentle jerking push being made from right to left, the large and indurated spleen could be distinctly felt tilted almost as far as the mesial line. Its smooth and rounded edge was significant of the notable enlargement of the organ. This lady had for years complained of a depending dragging sensation in the left side, and she could not lie in comfort on the right side. Her greatest trouble, however, was the persistent uneasiness which she experienced immediately below the ensiform cartilage; pain after food, flatulent distension, and sour eructations had long been from time to time distressing symptoms. Occasionally these feelings were associated with nausea and vomiting. She was under my care for some months subsequently, when for a time she left Tunbridge Wells. On Sept. 2nd, 1875, I was again sent for to see this patient, who sought relief from her former malady. She had pain at the epigastrium, which was augmented on moderate pressure, and there was a continuous feeling of sickness. During the subsequent few days she received some alleviation from the treatment adopted. On Sept. 8th I was in great haste sent for, and, being from home, my friend Dr. Milner Barry attended instead of me. He found she had vomited a large quantity of blood, and he prescribed turpentine and iced drinks. On my return home three hours afterwards I saw the patient, when the hæmorrhage had not ceased. The turpentine was repeated, but the vomiting of blood returned. I then tried gallic acid, but not with any marked effect. An ice-bag was placed on the epigastrium. I then commenced with thirty-drop doses of the tincture of the perchloride of iron, and, after the administration of this remedy, the bleeding began to decline. Very great prostration was induced, with approaching syncope. I remained in the house all the night, and the patient was doubtless in a very precarious condition. She vomited more than four pints of blood. For many hours the pulse was very small and compressible, the heart's impulse subdued, and the features became exceedingly blanched. During several days copious pitchy evacuations were passed, proving how great a quantity of blood had flowed down into the bowels. On subsequent examinations of the abdomen, the spleen by the hæmorrhage had been very manifestly lessened in volume. Three or four months passed over before this lady regained her wonted condition of strength. Her recovery was slow, and the pallor for a long time remained in a marked degree.

(To be continued.)

STRANGULATED INGUINAL HERNIA:

EMPLOYMENT OF THE ASPIRATOR; CURE.

BY HENRY BLANC, M.D.,

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HEERJEEBHAI N——, a Parsee, fifty-two years of age, but looking much older, weak and somewhat emaciated, was admitted into the clinical surgical ward on July 15th for strangulated inguinal hernia of the right side. The patient states that the hernia first made its appearance some five years ago; it was small and reducible, and he always wore a truss. On the morning of July 14th, whilst straining at stool, he felt a sudden sharp pain in the hernia, and, on rising, found that it had somewhat increased in size, and that he was unable to reduce it.

Condition on admission—11 A.M.: The hernia, situated in the right groin, and extending to the upper part of the scrotum, is elongated, tense, and the seat of pain on pressure; the surrounding tissues are normal. The pulse is small and compressible, the face anxious, the eyes deep set, and the skin somewhat clammy. Temperature in axilla 99°. No motion since yesterday morning. The patient suffered from nausea and eructations yesterday evening, and during the night and to-day vomiting has been frequent; the vomited matters are at present watery and tinged with bile; they are not stercoraceous. Taxis has been tried this morning by a native practitioner, but according to the patient's account much force was not used; the manipulations provoked such excessive pain that he would not allow them to be continued, and was taken to the hospital at his own request. An ice-bag was placed over the tumour, and pieces of ice given him to suck; he was also ordered a belladonna suppository.—3 P.M.: The general and local conditions are very much the same as four hours before. Previous to administering chloroform, the patient was told that, should taxis fail, advantage would be taken of the anæsthetic about to be given to proceed at once to operate. The patient positively refused to submit to the operation of herniotomy, and before inhaling the chloroform made me promise that, should taxis fail, I would not perform the other operation. Under chloroform taxis was tried, but a minute of gentle manipulations showed the uselessness of the proceeding in this case. The hernial tumour felt very tense, giving above on percussion a slight resonant sound, and to the hand the feeling of a collection of fluid tightly compressed. Not being allowed to operate, and taking into consideration the character of the strangulated hernia, I decided on puncturing it. I introduced into the hernia the finest trocar of the aspirator, and with this instrument withdrew about an ounce of slightly turbid, amber-yellow serum and a large quantity of gases. On withdrawing the cannula, the hernia slipped back into the abdomen with the greatest ease. Ordered half a drachm of tincture of opium, a grain of opium every third hour until its effects were manifest, fomentations to the abdomen, ice to be sucked, and milk and broth diet.

July 16th.—The patient passed a good night. The bowels have been moved twice. Complains of no pain in the abdomen; feels well. Temperature in axilla 98·5°; pulse 84, of a fair volume.

The case progressed most favourably; not a single bad symptom showed itself. The opium was discontinued the second day. Liquid diet alone was allowed for a few days, when more substantial food was permitted. On the 24th he was discharged.

FOUR CONSECUTIVE CASES OF OVARIOTOMY.

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CASE 1.—Mrs. S——, aged thirty-seven, from Kilamarsh, near Chesterfield, married fifteen years, never pregnant. She had always been healthy, and first noticed an increase in her abdomen in 1868. This steadily increased until Sept., 1869, when she was unable to move about, and was tapped by her medical attendant in the country for the first time. She was tapped altogether eight times, as follows:—

1st tapping,	Sept.,	1869.	Quantity drawn off,	23	pints.
2nd "	Oct.,	1870.	" "	25	"
3rd "	July,	1871.	" "	29	"
4th "	March,	1872.	" "	33	"
5th "	Nov.,	1872.	" "	34	"
6th "	Dec.,	1873.	" "	39	"
7th "	Sept.,	1874.	" "	31	"
8th "	Oct.,	1875.	(Operation)	28	"
			Total	242	pints.

She seemed to have suffered comparatively little from this enormous drain—over thirty gallons of fluid withdrawn in the space of five years. She was generally up and doing on the third or fourth day. After each tapping her body diminished to its natural size, until after the sixth, when a solid tumour was distinctly felt in the abdomen. After the seventh tapping the tumour had grown to be "as big as her head." She had entered two other hospitals in this town to be operated on, but suddenly changed her mind and left, and she twice acted in the same way in the Women's Hospital.

In appearance she was a small-sized, sallow-complexioned woman, with a marked *facies ovarica*. Owing to the great size of the body she walked with difficulty. Menstruation had always been regular; uterus normal size and movable. Lower part of the thoracic walls greatly bulged outwards by the pressure from below; circumference of abdomen, 44½ in. I examined this patient by the rectum, introducing my whole hand while she was chloroformed. I reached with my finger above the promontory, and could distinctly make out that the left ligamentum latum and the uterus were not complicated in the attachments, though I could not directly feel the attachments on the right side. The patient suffered no inconvenience from the examination.

On May 14th Mr. Baker, F.C.S., Professor of Toxicology in the Medical School, kindly examined two samples of her urine, the first passed at 7 A.M., before breakfast, the second passed at 10.30 A.M., two hours and a half after breakfast. The results were as follows:—

	No. 1.	No. 2.
Reaction	Acid. ...	Neutral.
Specific gravity ...	1·0262 ...	1·0033
Urea per 100	2·6 ...	0·4
Chloride of sodium ...	0·9 ...	0·18
Phosphoric acid ...	0·051 ...	0·0166

No. 1 gave an abundant deposit on standing twenty-four hours, No. 2 remained tolerably clear. No albumen existed in either sample.

Operation.—On Oct. 14th ether was administered with Richardson's apparatus, one hour being required, and nine ounces of ether used. But, when once narcotised, the effects were most satisfactory. She was once slightly sick. I made an incision in the linea alba only large enough to admit the hand, which I introduced at once for an exploration. Very few adhesions were found, notwithstanding the numerous tappings. I next drew off about half the contents of the sac, which was of a thin and darkish olive colour; then tied the orifice; and, finding it free, withdrew the whole sac. The pedicle was attached to the right ligamentum latum, and was so broad that I had to tie it in four segments. This was done with carbolised gut, and, after separation of the sac, the pedicle was returned to the abdomen. The abdominal wound was closed by deep and superficial ligatures of carbolised gut, and covered with four layers of lint soaked with carbolised oil (one in twenty) and four layers of dry lint. She was then given a suppository (quarter of a grain of hydrochlorate of morphia), her urine was drawn off, and she was put to bed. The operation lasted twenty-five minutes. On the third and fourth days following she was sick several times but this was stopped by a hot turpentine stupe applied over the pit of the stomach. On the 19th I dressed the wound under the carbolic spray; found it all healed beautifully, not more than two drops of pus in the track of one of the thick deep sutures. Several of the superficial (thin) sutures came away, the thicker ones being discoloured brown, and a good deal shrunken. On the 19th she had some custard pudding, and enjoyed it. On the 20th the urine became alkaline, thick, sp. gr. 1022, the quantity in twenty-four hours being twenty ounces. It continued alkaline until the 24th, when it was just faintly acid. The bowels were not moved until the 23rd, when an enema was administered. Several hard scybala had to be removed by the finger from the rectum. On the 29th there was a drop or two more suppuration in the course of one of the stitches. I cut the ligature, as it was a little tight, and it healed quickly. On the evening of the 16th she began to menstruate a little, the discharge continuing for three days slightly. The variations in the urea eliminated and in the temperature were as follows:—

	Urea. Morn.	Urea. Even.	Temperature. Morn.	Temperature. Even.
Oct. 14th ...	·85* ...	1·55†	99·3°‡ ...	101° F.
" 15th ...	— ...	4·0	99·2° ...	102°
" 16th ...	3.2 ...	3·9	101·3° ...	101·2°
" 17th ...	— ...	4·2	100·2° ...	101·1°
" 18th ...	— ...	5·4	100° ...	100°
" 19th ...	— ...	2·7	98·2° ...	100·4°
" 20th ...	— ...	4·2	99·1° ...	101·2°
" 21st ...	— ...	3·0	99·3° ...	99·4°
" 22nd ...	— ...	2·9	98·4° ...	99·2°
" 24th ...	— ...	1·9	98·2° ...	98·4°

* 10 A.M. before operation. † 10 P.M. ‡ Before operation.

During the first three days very little food was taken, chiefly milk, with a little ice. I saw the patient a month after she left the hospital, and did not recognise her owing to the great improvement in her condition. She was plump and fat, and greatly changed in appearance.

CASE 2.—Mrs. T——, aged twenty-five, a pale, not unhealthy-looking woman, began to menstruate at sixteen, and had been regular up to the last six months; has been only once pregnant, when she miscarried about the fifth month; mother died of cancer of the womb, aged thirty-five. In 1873 she began to experience severe pain during coition at the site of right ovary, and has suffered severely from it ever since. About a month after the first occurrence of this pain she noticed a small swelling at the seat of pain. The swelling used to diminish after menstruation, but never quite disappeared. After about a year and a half it had grown decidedly much larger, and ceased to diminish monthly. In May, 1875, she first came to me to the Women's Hospital. At that time a tumour about the size of an ordinary cocoa-nut could be distinctly made out, situate in the right iliac fossa, very firm and movable, and not connected with the uterus; the circumference of the body not apparently enlarged; no fluctuation was perceptible. After a short residence she left, and returned on Aug. 6th, 1875. The following measurements were then taken:—

	Inches.
Circumference over umbilicus	36¼
Right anterior superior spine of ilium to umbilicus ...	7½
Left " " " " " ...	9½
Symphysis to umbilicus	7½
Ensiform cartilage to ditto	7½

Her general health was good, but she menstruated weekly to the extent of an ordinary monthly discharge. Abdomen smooth and shining in appearance, slightly accuminated at umbilicus, very tense, dull on percussion all over the front, clear sound in flanks, no alteration of form or sounds on change of position, fluctuation distinct in every direction, no bulging of vaginal walls; uterus three inches long, movable; urine, specific gravity 1018, acid; urea 2·3 per cent.; sodium chloride 0·617 per cent.; abundance of phosphates; no albumen or sugar.

Operation (Oct. 28th).—Ether was administered with Dr.

Richardson's (Dublin) apparatus, the time thus occupied being nearly one hour, and seven ounces of ether being used. Made an incision in the linea alba about four inches long, between umbilicus and symphysis; on reaching the peritoneum, it projected upwards considerably through the wound, clearly indicating a considerable quantity of ascitic fluid. As the covering membrane was so thin, I considered it useless to attempt to withdraw the fluid with a cannula, which only leads to tearing and waste of time, so I cut through it and at once passed my hand into the abdomen, taking advantage of the presence of the fluid, as in turning, to ascertain the relation of the various parts. There were no adhesions; the pedicle grew from the right ligamentum latum within half an inch of the uterine cornu, and was about an inch and a half long by two inches broad. I then pressed all the fluid out of the abdomen, dried it out with new sponge wrung out of warm carbolic lotion (1 in 60), and as the contents of the sac were too thick to flow through the cannula, I enlarged the incision to six inches, and withdrew the tumour. The pedicle was then tied in two segments with carbolised gut, the ligature cut short, the tumour separated by the écraseur, and the pedicle returned to the abdomen. The abdomen was then again carefully cleaned out as before, and the incision closed by deep and superficial sutures of carbolised gut. Four layers of lint soaked in carbolised oil (1 in 20) were then laid over the wound, over this a piece of oil-silk, and a large double layer of lint over this. The whole was then fastened in position by long strips of plaster and a binder. Her water was drawn at once, and half a grain of hydrochlorate of morphia suppository administered, and she was put to bed. Not a drop of blood was lost during the operation, except a very little from the abdominal incision. Neither bowels nor omentum were seen throughout.

Had slight sickness after the operation for two days, but felt great relief from Chapman's spinal ice-bags. On the third day her urine became alkaline, with severe pain in bladder. I ordered hydrochloric acid, two drachms in an eight-ounce mixture, one ounce to be taken three times daily, and washed the bladder out night and morning with weak solution of carbolic acid. The alkalinity continued for five days. The quantity of urine averaged during these five days about 20 ounces; its specific gravity ran as follows:—1028 (urine alkaline), 1020, 1010, 1018, 1020, 1011 (urine acid). It was highly ammoniacal while alkaline, and the ropy mucous and epithelial débris came away when the bladder was washed out. The wound was for the first time dressed on the third day, under the carbolic spray, when it was found perfectly united throughout; not a particle of pus. On the seventh day after the operation menstruation commenced, and continued normally for three days. Her recovery progressed unimpeded.

Two months afterwards she came to me suffering from ascites, severe pains in vagina, shortness of breath, and inability to get about. The heart's action was very feeble, otherwise there was no apparent derangement. She recovered completely on tincture of perchloride of iron and digitalis.

The course of the temperature after the operation was as follows:—28th: Morning, 99·5° (half an hour before operation); evening, 101·5° (eight hours after operation).—29th: Morning, 100·2°; evening, 100·1°.—30th: Morning, 100°; evening, 100·4°.—31st: Morning, 99·3°; evening, 101°.—Nov. 1st: 101°.—2nd: 99°.—3rd: 99°.—4th: 99·5°.—5th: 99°.—6th: 98·4°.

The urea excreted per 100 varied considerably, even when, as during the first three days, very little food was taken except milk in small quantities. As estimated by Russell and West's method, it ran thus:—During three days before operation, on full diet, it was respectively 2·3, 2·1, 2·3.—Nov. 28th: Evening, 1·3 (after operation).—29th: Morning, 2·9; evening, 1·9.—30th: 3·. On Nov. 31st and three following days the urine was alkaline; on Dec. 8th it was acid.

(To be concluded.)

The guardians of the West Derby and Toxteth Unions are now considering the desirability of establishing a new pauper lunatic asylum near Liverpool, in which the inmates might be maintained more economically than in the present Lancaster county lunatic asylums.

ON THE ACTION OF HYOSCYAMINE AND ITS RESEMBLANCE TO ATROPINE.

BY J. SYDNEY PEARSE, M.R.C.S., L.R.C.P., LOND.,
PHYSICIAN'S ASSISTANT, UNIVERSITY COLLEGE HOSPITAL.

THESE investigations have been made with the crystalline hyoscyamine, imported from Germany and prepared for use by Mr. Martindale, of New Cavendish-street. The strength of the solution was one grain in two drachms, similar to the liq. atropiæ of the Pharmacopœia.

Its external application to the skin appears to have a similar action to atropia in relieving pain. I have seen this in two instances. In one an hysterical woman had complained of neuralgic pains in the temporal region for two days without any apparent cause. A few drops of the solution were painted over the painful spot, and in half an hour the pain had almost entirely disappeared. It produced no redness of the skin, and, as far as could be judged, no anæsthesia. The skin was dry before the application, so that the action of the secreting glands could not be said to be checked. The other instance was on a patient suffering from pleurodynia, in which the pain was removed, but not to the extent of the other case. The application, however, was not repeated more than once.

The solution, when painted into the skin in the neighbourhood of the eye, does not appear to produce any topical action on the pupil, there being no dilatation, and no alteration of vision. If this be true it will differ from atropia in this respect. When dropped on the conjunctiva its action is evidently very similar to atropia. The dilatation is, perhaps, not quite so rapid as when caused by atropine, but the amount of contraction of iris is quite as great, and the effects last equally long, if not longer. The amount used in each observation was about $\frac{1}{12}$ grain, and probably some of this escaped. Its application does not cause any uneasiness, and it was on one occasion noticed to relieve pain in the eye immediately on introduction, and before the pupil commenced to dilate. As soon as the topical action commenced misty vision was frequently complained of, which lasted from a few hours to four days. This was present in about half the cases, and varied from a slight dimness to an extent which rendered it impossible for the patient to read unless the print was within two or three inches of the nose.

The time required to produce full dilatation was found to be about fifteen minutes; the longest being twenty-five minutes, and the shortest ten minutes. In no instance did it fail to produce its results; and in the majority of the cases the dilatation was extreme, the iris being reduced simply to a narrow line. No diplopia was produced. There was total insensibility of the iris, lasting a variable time; the duration of dilatation also varied, lasting from two to twenty-one days. The following table shows the average:

No.	Time for full dilatation.	Duration of dilatation.	Pupils react fairly well.	Affection of sight.
1	13 min.	5 days	4 days	Dim vision, lasting till 4th day.
2	15 min.	6 days	4 days	Vision good throughout
3	17 min.	10 days	2 days	Slight dimness of vision.
4	15 min.	12 days	36 hours	No alteration of vision.

In no instance was sufficient applied to produce dilatation of the opposite pupil, or other constitutional effects.

When used hypodermically, the results produced by hyoscyamine are very similar to those of atropine. The dose, however, must be somewhat larger to produce the same effect as atropia. Dr. Ringer finds that "in profuse sweating, produced by the hot chamber of the Turkish bath, $\frac{1}{15}$ gr. or $\frac{1}{20}$ gr. of atropia will in a few seconds completely

dry the skin and keep it dry, and that the same dose would arrest the sweating of phthisis." One minim of the solution, containing $\frac{1}{120}$ gr. of hyoscyamine, was injected hypodermically in a man suffering from phthisis, perspiring profusely. No effects were produced except a little dryness of the mouth, and of this there could be no absolute certainty. If, however, the dose be doubled, and one-sixtieth of a grain be given, the symptoms produced are constant and well marked. Like those caused by atropia, they are—dryness of the skin, mouth, and pharynx; great thirst; flushing of the face; injection of conjunctiva, dilatation of the pupil, and loss of power of accommodation of the eye; pulse increased in frequency, the fulness being also increased. There is also headache, giddiness passing on to a semi-conscious condition and sleep.

The dryness of the mouth and pharynx were invariably present, coming on usually within half an hour of the injection. The skin in some instances became hot as well as dry, and a rise in the temperature to the extent of 1° in an hour was noted where the full constitutional effects were produced. The mouth became dry, thirst being great, but in no instance was this stage succeeded by difficulty in swallowing and hoarseness, nor was the dryness replaced by a viscid, sticky, foul-smelling secretion, as found by Dr. Harley with atropia. The flushing of the face and injection of conjunctiva were well marked, the pulsation of the carotids being increased and visible on the surface in a few observations; but the pulsation of the carotids and injection of the conjunctiva were frequently absent, although the face was almost always flushed. Dilatation of pupil was very obvious, and usually present. Generally speaking, the dilatation was not so great as that due to local application, nor were the effects so permanent, the iris having recovered itself within twelve hours. The power of reacting to light was also lost, there being misty vision and loss of accommodation, usually followed by sleep. The pulse was increased in frequency, the increase, however, not being so great as is caused by atropia; the greatest rise noticed with hyoscyamine was 36 pulsations per minute, whereas with atropia 50 or 60 beats per minute above normal have been recorded. The average of ten observations with hyoscyamine (one-sixtieth of a grain each) gave an increase of 18, but it was found by increasing the dose that there was a corresponding increase of pulse: for instance, $\frac{1}{120}$ gr. caused an increase of only 8 beats, $\frac{1}{60}$ gr. an increase of about 18, and $\frac{1}{30}$ gr. an increase of 36. The increase commenced within five minutes of the injection, and had reached its point of maximum intensity in about half an hour. This increase generally lasted less than an hour, and the frequency of pulse had fallen to its normal condition in three or four hours. It was not noticed to have fallen below the normal average, although it lost in strength as the heart's action became slower. No irregularity of the heart was observed.

The headache, giddiness, and tendency to sleep were induced in the majority of instances, but where the headache was very severe this prevented sleep. The mind was not affected, and there was no delirium.

Atropia is said to produce unsteadiness of gait. This was not noticed except in a patient with locomotor ataxy, in whom the ataxic condition was greatly intensified when under the influence of this drug. He suffered acute shooting pains in the affected limbs, which were at all times considerably relieved by the hyoscyamine. It never caused inflammation at the place of administration.

Effects on the urine.—In comparing the action of hyoscyamine with that of atropia, the results do not appear to be similar; for it has been pointed out that atropia increases the quantity of the urinary water, whereas hyoscyamine, as far as these observations show, does not affect the secreting power of the kidneys, or, if it has any action, tends to lessen the urine. In estimating the amount of urine secreted, the patients emptied their bladders every hour for at least four hours prior to the administration of the drug, the whole amount was measured, and the average taken. In No. 1 the hourly average before was ten drachms, afterwards it was reduced to six drachms. In No. 3 the average before was ten drachms, which, after the drug, was raised to sixteen drachms. This is the only time an increase was noticed, and on repeating the observation two days afterwards on the same patient, it was found that the average after the hypodermic administration was less by two drachms than it was before. From further observations, the same conclusion was arrived at—viz., that the secretion of urine is not increased by hyoscyamine.

ON A CASE OF

NERVOUS IRRITABILITY ASSUMING A HYDROPHOBIC CHARACTER.

BY FLEET SURGEON JOHN T. GABRIEL, R.N.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

S. M——, aged fifteen, second-class boy, came under my observation on the 1st of June, on account of the trouble he gave in resisting every attempt to place him into a bath in the bath-room, in accordance with the daily practice among the boys. The attempt always elicited from him loud shrieks, and caused him to struggle violently, and indeed he evinced the utmost terror of immersion. I accompanied him to the swimming-tank, where the depth of water is four feet, and on that occasion I witnessed the effect upon the patient when he was told to go into the water. He shrieked, his eyes became prominent and fixed in a stare of horror, countenance livid, mouth open, and the patient gasping and breathless; indeed, he appeared about to pass into convulsions. On being relieved from his apprehension of having to go into the water, he instantly recovered, and assumed his natural appearance. The attack struck me as bearing a close resemblance to one of hydrophobia, according to the descriptions of this malady which I had read.

I recommended that the patient should be placed in the school-list, and not again be forced to go into the water. On questioning him, he stated that when the fear of the bath assailed him, he was seized with an oppressive and acute pain in the right side, at a point corresponding to the diaphragm, and accompanied with extreme difficulty of breathing, and that the mere application of water to the chest caused the same sensation, only in a less degree. This account was quite consistent with the character of the attack. On further questioning the boy, he said the pain extended from the lower thoracic region, shooting through the right shoulder, and that he felt unable to stand. He complained also of pain in the side occurring every morning and evening, and that it invariably woke him up at four A.M., and has done so for the last twelve months. He states three years ago he fell into the water, and was nearly drowned, having been rescued in a state of insensibility, in which he remained for two days, and lost the faculty of speech for two weeks.

With the exception of the above remarkable symptoms, the boy's health exhibited no defect. The condition appeared to be one depending upon fright arising from the accident mentioned above, and the attack which always followed a threat of putting him into the water would appear to depend upon the paralysing effects of fear on the brain and nervous system, and through them upon the muscles of respiration, of which the diaphragm seems in this case to have been chiefly affected, and thrown into a painfully spasmodic state, preventing inspiration, and, through compression of the phrenic nerve, giving rise to the pain shooting through the shoulder.

Upon this view of the case, the treatment pursued was the administration of one-thirtieth of a grain of strychnine three times a day, and the application of electro-galvanism. These, combined with gentle and encouraging words, seem to have succeeded in restoring confidence, as the boy now voluntarily enters the bath, and declares that he likes it.

VACCINATION IN IRELAND.—During the year ending September 30th, 1875, there were 137,340 persons vaccinated, being a decrease of 2247 under that of the preceding year. Of these, 94,370 were under one year old when vaccinated, 25,305 above one year, and other cases (revaccinations?) 17,665. During the year a slight increase took place in the deaths from small-pox, in 1874 there being 540 deaths, and in 1875, 543.

ON THE SUPPOSED RELATION BETWEEN HÆMORRHAGE AND ALTERED BAROMETRIC PRESSURE,

WITH OBSERVATIONS ON 120 CASES OF HÆMOPTYSIS.

BY JAMES M. WILLIAMSON, M.D. EDIN.,

LATE RESIDENT MEDICAL OFFICER TO THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, VENTNOR, ISLE OF WIGHT.

THOSE who have advanced and supported the theory that variations in atmospheric pressure are constantly exercising a determining influence on the occurrence of hæmorrhages, have told us that bleedings may be determined either by an increased or a diminished amount of pressure. They argue that when the barometer is high, especially if the air at the same time is cold, the activity of the circulation is augmented, particularly through the viscera; but, on the other hand, when the barometric column is low, and more especially if this diminished pressure is accompanied by much heat or moisture of the air, the blood-current is slower, and a state of passive congestion is encouraged. We are all aware that undue acceleration or retardation of the circulation is a state full of danger to the bloodvessels when their coats are weakened, as in some forms of disease; and these conditions of the blood-current are capable of being occasioned, we are assured, by the oscillations in the pressure of the atmosphere. A more recent advocate of the theory has perhaps advanced a step further, and has informed us that active or sthenic hæmorrhages which terminate fatally are the result of, or are at all events attended by, an elevated condition of the mercurial column, while passive and symptomatic hæmorrhages are associated with an opposite condition of the barometer.

It is a fact well known that remarkable disorders of the circulatory system have been experienced by those who have voluntarily exposed themselves to great variations of atmospheric pressure, as in the ascent of very high mountains, and in the case of divers. The symptoms of *soroche*, or mountain-sickness, which have been described by Humboldt, Bonelli, and other travellers, vary in severity according to the height attained. Mr. C. R. Markham mentions that having reached an altitude of 14,350 feet when travelling in Peru, he suffered from "a violent pressure on the head, accompanied by acute pain and aches in the back of the neck, causing great discomfort." Actual bleedings do not seem to occur till a greater elevation than this is attained; and even then, according to Dr. Walshe, the possibility suggests itself that where hæmoptysis results latent disease may have already existed in the lungs, heart, or great vessels. There can be no doubt, however, that these facts strongly aided, if indeed they did not wholly originate, the theory that smaller variations in pressure exercise an influence on the outbursts of hæmorrhages, at all events in those with fragile vessels. Now, at a height of 14,350 feet, an elevation not great enough, as has just been said, to produce an actual bleeding, the barometer would have fallen thirteen inches, and would only stand at 17·9. But the limits within which the ordinary barometric column oscillates do not exceed four inches for extreme range, and the usual range is confined to about two inches. We have nothing to do at present with the discussion whether the action of changes of atmospheric pressure on living bodies is mechanical or chemical, although one would have supposed that the notion revived by M. Bert* had been set aside some time ago by the observations of Payerne, quoted by Dr. Walshe. What we desire to know is whether it is a fact that these smaller variations in pressure exert any determining influence on the occurrence of hæmorrhages. The lungs are perhaps better adapted than any other region of the body for the study of this supposed atmospheric influence. The amount of blood in relation to the structure in which it circulates is greater in them than in any other part of the body, with the exception of the bloodvessels themselves; while, again, they present a large area constantly exposed to atmospheric changes. It is not to be wondered at therefore that the statistics which have been hitherto published on the subject, although including cerebral and uterine hæmorrhages, have to a great extent been made up of cases of hæmoptysis.

I propose now to lay before the reader the results of my own experience on this subject, founded upon the careful observation of 120 cases of pulmonary hæmorrhage which have come under treatment at various periods during the last three years. The patients were all suffering from phthisis, and as they were all inmates of the Royal National Hospital for Consumption at Ventnor, there was, in addition to the accuracy of the medical record of each case being ensured, the advantage of having a number of persons placed at the same time under identical conditions. The readings were taken from one of Negretti and Zambra's standard barometers, fixed in one of the blocks of houses of which the hospital consists.

For the sake of convenience I have divided the cases into four classes, arranging them according to the actual amount of blood lost—namely, into small, considerable, copious, and profuse.

1. *Small.* — This class includes all of the cases in which the amount of the hæmorrhage was under one fluid ounce, and it comprises 80 out of the 120 cases. Of the 80 bleedings, 36 occurred when the barometer was rising, and 44 when it was falling. The exact amount of rise varied from ·002 in. to ·40 in.; and of fall, from ·015 in. to ·461 in.

2. *Considerable.*—Under this head are classed 16 cases in which the amount of blood was estimated at above one and under three fluid ounces. Of these, 11 happened when the mercury was going up, the lowest amount of rise being ·002 in. and the highest ·403. The barometer was falling when the remaining 5 occurred, the least fall being ·036 in. and the greatest ·196 in.

3. *Copious.*—This subdivision comprises 12 cases in which the hæmorrhage was to the extent of from three to six ounces. Two-thirds occurred with a rising barometer, the extremes being ·018 in. and ·170 in. The mercury was falling when the remaining 4 took place, the extremes being ·083 in. and ·429 in.

4. *Profuse.*—A class comprehending the 12 cases in which the hæmorrhage exceeded six fluid ounces. Of these 12, the barometer was stationary in 1, rising in 6, falling in 5. In 2 of these profuse cases the bleeding was so violent as to be fatal in less than ten minutes from its outburst; the mercury was stationary when one of these occurred, while on the day on which the other happened there was a rise of ·727 in.

Looking at the 120 cases collectively, it will be seen that 50 took place when the glass was falling, 69 when it was going up, and 1 when it was stationary. These data are very far from confirming Dr. Joslin's statement made in an American journal, and founded on notes of 54 cases of hæmorrhage—namely, that "the probability that the atmospheric pressure shall be diminishing rather than increasing at the time of the attack is about 2 to 1." And yet, on the other hand, so far as they go, they do not contradict the theory which conveniently connects a bleeding with either a rising or a falling barometer.

But some other facts which were observed in the course of the investigation remain to be mentioned. First, it was noted that during the entire period of the three years the barometer remained stationary for twenty-four hours together only on seven occasions. The chances, therefore, of a bleeding, or, indeed, of anything else occurring on a day on which the mercury was neither falling nor rising was extremely small. Then, again, it was observed that a patient who had hæmorrhage coincidently with a certain fall or rise in the mercurial column had no return of the bleeding on another day when there was an equal or even a much greater variation in pressure. Can it, for instance, be supposed that a rise of $\frac{1}{10}$th of an inch in the barometer will determine a profuse hæmoptysis at one time, whereas at another a rise of nearly an inch passes by without any untoward circumstance? It was also noted that numerous falls and rises occurred when there were no hæmorrhages at all, although these variations were to a greater extent than when the same or other patients had had hæmoptysis. Lastly, if the theory is true, it is difficult to see why, when numbers of phthisical patients are congregated together in

* Comptes Rendus de l'Académie des Sciences, Dec. 27th, 1875.

a large hospital, more cases of hæmoptysis do not occur at one and the same time, especially when it is remembered that expectoration of blood takes place to a greater or less extent in at least 80 per cent. of cases of phthisis.

Taking these facts into consideration, then, as well as the collateral records of hæmorrhages and barometric readings, it cannot be said that observation confirms the notion that variations in atmospheric pressure have a determining influence on the outburst of pulmonary hæmorrhages. I find that this conclusion agrees with that drawn by Dr. Arthur Ransome from his investigations;* and these results may be offered in response to an appeal made in a paper read before the Leeds meeting of the British Association, for careful observations "either to confirm the theory or to prove it a philosophical figment unworthy of further investigation."

Welbeck-street, W.

DISLOCATION OF THE HIP IN A GIRL AGED EIGHT YEARS, REDUCED BY MANIPULATION, WITHOUT CHLOROFORM.

BY H. W. COLEMAN, L.R.C.P., M.R.C.S., &c.

THE extreme rarity of such cases, the peculiar accident, and the mode of reduction induce me to publish the following interesting case.

On the evening of Tuesday, April 25th, I received a message requesting me to see a daughter of Mrs. W——, residing some distance from my house, who had received a severe injury to the hip. I was unable to see the case that night, and requested my assistant, Mr. W. B. Boughton, to do so, who immediately on seeing the case diagnosed it readily.

It appears this child was being pursued down the street by two boys with iron hoops. She entered a passage dividing two blocks of houses, and having got midway was overtaken by one of the hoops passing between her legs, which threw her down with much force, and by some unaccountable circumstance she fell with one leg through a sort of trap-door into a cellar, the iron grating of which had been previously displaced.

When found she lay upon the side on which the dislocation had taken place, suffering most intensely from pain and shock, also quite unable to stand. My assistant placed her in bed in the most comfortable position possible, and ordered hot fomentations to be applied until the case was seen by me. I may here state that the infrequency of such cases and the fact of my having only seen one similar case, and that under the care of Mr. S. Hey, during the period of four years, made me very dubious of the diagnosis.

I did not see the case until early next morning, having been called up owing to the restlessness and suffering of the child. I had her placed in the erect position by the side of the bed, and from the very characteristic features of the deformity recognised it at once as being one of dislocation of the left hip, with head of femur resting on the dorsum ilii. There was marked inversion, the knee turned inwards towards the sound side, the ball of the great toe resting on the dorsum of the right foot, and on measuring there was an inch and a half of shortening; also the head of the femur could be distinctly felt and seen in its new position.

I laid the child on the bed, flexed the thigh well on the body, rotated outwards, abducted, and suddenly extended. To my great satisfaction, and to the delight of all present, the sharp snap which is so unmistakable in these cases was audible throughout the room; and the child, whose previous sufferings were indescribable, exclaimed, "I am all right now; the pain is gone." I put on a Liston's splint and kept her in bed for a month, and in five weeks after the accident I was somewhat surprised to find her playing in the street without a vestige of lameness.

Armley, near Leeds.

* Proceedings of Lit. and Phil. Society, Manchester, 1861.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GREAT NORTHERN HOSPITAL.

REMOVAL OF NECROSED PATELLA.

(Under the care of Mr. GAY.)

THE operation for the removal of the necrosed patella has very rarely been performed. The first recorded instance seems to have occurred in the practice of M. Thirion, of Namur, in 1829. The details of that case may be found in one of the early numbers of this journal (vol. xviii. 1829). The patient recovered with a useful limb. Dr. Gross, of Philadelphia, some years ago, gouged away nearly the whole of a patella that had suffered necrosis from frost-bite; and in 1860 Dr. O. B. Knode, of Missouri, removed the whole patella for necrosis, after a fall. In both these instances a useful limb was obtained. Another case was recorded by Dr. Kelly, in the twenty-second volume of the Pathological Transactions. It was under Mr. Wood's care at King's College Hospital. This appears to have been caused by pyæmia of the knee-joint a fortnight after a punctured wound of the forefinger by a dirty fork in a girl aged seven. The joint was freely opened, and after six weeks the patella was found loose on the surface of the wound, and was removed. Mr. Stanley does not allude to the subject in his excellent work on the Diseases of Bones.

Jessie C——, aged thirteen, when admitted on the 5th of June, was anæmic and thin, and had been the subject of rickets; the tibiæ, especially the right, being considerably curved, as usual, forwards. Little could be obained about the history of the case. Her mother stated that she had always been weakly. She had had chronic sores on the nates and axillary abscesses when two years old. About January last, the right knee became painful, red, and swollen. An abscess formed over the patella, which broke spontaneously; the opening enlarged, and the surface of the patella gradually extruded.

On admission, the patella was found necrosed, with matter oozing from the contiguous soft parts. The joint was extended, and extremely painful both on pressure and on the slightest attempt at flexion. When moved, a sense of extensive creaking or crackling was perceptible within the joint. The child was in a very low condition, and it was deemed desirable to do something surgically without delay in order to save life.

Mr. Gay determined on removing the patella. This was done on June 14th. On the removal of the bone, the joint appeared to be full of red granulation-tissue, upon which the under surface of the patella rested, and to which it was somewhat adherent. It completely obstructed any view of the interior.

The limb was placed on a back splint and slung. Not a single bad symptom followed. The wound healed, and by the middle of July the girl was up and about. There was considerable movement of the joint without pain, and all creaking sound had ceased. By the latter end of the month she began to walk about with the assistance of a stick. She will probably recover the use of her limb to nearly the same extent as those in whom fracture of the patella has issued in union with extensive separation of the fragments.

There was no history in this case from which the immediate cause of the necrosis could be inferred; no blow or other local or special constitutional injury other than the struma referred to. The bone perished, and the abscess formed in order to effect its release. The bone was small, and the cancellous cells large, but without any signs of their having been subjected to an attack of osteo-myelitis. It is probable that the necrosis in this case was due to direct injury and low vital power.

The bone was bare excepting at its articular surface, from

which the cartilage was in the act of being removed. At the centre it had been removed over a considerable space, exposing its cancelli. And this removal had obviously been effected by absorption through the medium of the red granulation-tissue referred to, and such as is found around articular joint disease in close connexion with the borders of the cartilage, in cases where this is undergoing removal. This tissue occupied the entire subpatellar region of the joint, and was attached to the bare bone, but not to the surface of the adherent cartilage, so that the absorption was taking place at the edge and not at the superficies. The absorption, too, was complete, for there was neither débris nor pus on its surface when the bone was uplifted. This tissue appears to have been itself absorbed after the removal of the bone.

ST. GEORGE'S HOSPITAL.

THREE CASES OF TETANUS TREATED WITH CALABAR BEAN.

(Under the care of Dr. DICKINSON and Mr. POLLOCK.)

SUBJOINED are the notes, supplied by Dr. Fenwick and Mr. Bull, of the second case of tetanus treated successfully at this hospital with extract of Calabar bean.

CASE 2. *Idiopathic tetanus cured by extract of Calabar bean.*—The patient, aged eighteen, was a market-gardener. Two days before his admission he was exposed to cold and wet in a market-garden, and the day before his admission he began to suffer from pain in the loins. No history could be obtained of any injury. When admitted he complained of pain in the loins; tongue was coated, skin hot; bowels were confined, but were opened by a dose of calomel. Ordered thirty grains of bicarbonate of potash, and an equal quantity of the citrate, in water, every four hours. To have also three pints of milk.

July 21st.—This morning he complains much of pain in the back, and there is considerable opisthotonos, the muscles of the back being contracted and as hard as boards, and there is also risus sardonicus. Bowels confined. There is an occasional exacerbation of the spasm, lasting about thirty seconds. To have a quarter of a grain of extract of Calabar bean, in a pill, every three hours, and six ounces of brandy mixture in the evening.

22nd.—Ordered a calomel and colocynth pill, to be followed by a senna draught. At 10 30 P.M., one-third of a grain of Calabar bean was injected subcutaneously, and repeated in two hours, and half a grain in pill was given every two hours during the night; the subcutaneous injections being resumed in the morning. The brandy mixture was repeated, and two pints of strong beef tea were also ordered.

23rd.—The Calabar bean continued as above; a senna draught given.

24th.—He is sleeping quietly, but wakes up sometimes with a cry. There is decided relaxation, to some extent, of the spasm to-day, and he feels much easier. There is considerable redness and swelling on outer side of both forearms, apparently caused by the injecting needle. Bowels acted freely, after a castor oil enema. Half a grain of Calabar bean extract was given in water every two hours.

27th.—Extract increased to two-thirds of a grain every two hours. Bowels kept open by pills and draught. To continue the brandy mixture.

28th.—The spasm generally is much relaxed, and the exacerbations are less violent and not so frequent. He complains much of pain in the legs, and the abdominal muscles are very hard. The extract of Calabar bean increased to one grain every two hours in water.

30th.—2 P.M.: He felt very low this morning, though free from pain. He feels better now; the spasms are less intense and not so frequent, recurring now about once in five minutes. The "risus" is not so well marked except when he talks. Tongue coated; bowels have acted twice to-day; pulse 120.

31st.—The spasms have been more frequent this morning, and he complains of pain about the legs; bowels have acted twice. The breathing having become very slow, and the pupil fixed, a dose of the extract was omitted.

Aug. 1st.—The pain and spasm have ceased again; tongue coated; bowels open. The Calabar bean was increased to a grain and a half every two hours, the dose being omitted at 12 o'clock, and the brandy mixture continued, but increased a little; the extract to be given every three hours.

4th.—Had one general spasm at 1 P.M. Pupils much contracted in the afternoon, and patient quite under the influence of the Calabar bean. He has had some slighter spasms of flexor of the left leg. Bowels open twice; tongue dry and coated; pulse 90. One grain of the extract to be given every three hours.

8th.—Had a mutton chop and potatoes.

9th.—Since the night of the 6th the spasms have not recurred, except slightly on being touched or spoken to, but the face is still distorted with "risus" when he speaks, and he complains much of soreness (rather than pain) in the back. Tongue is clean and moist. Urine phosphatic. Ordered one grain of extract of Calabar bean, four grains of sulphate of quinine, ten drops of dilute nitro-hydrochloric acid, in an ounce and a half of camphor water, every six hours. Repeat brandy mixture.

11th.—He says that a few times during the day he is attacked by very slight spasms, which hardly cause him any pain, and do not attract the notice of anyone else. Some pain on the right side on deep inspiration, and feeling of soreness about the back; cannot open his mouth very wide, or straighten his knees. Bowels open regularly. Tongue clean and moist. Urine natural. The Calabar bean to be omitted in the afternoon; the brandy mixture to be reduced to three ounces. On the 16th the brandy mixture was omitted altogether.

18th.—Has had no more spasm except a little in the left leg, which wakes him up when he tries to sleep. Much stiffness about groin and knees. Tongue a little dry and coated, and breath slightly foul. He is up and dressed for some hours in the day. Slight rise of temperature this morning (98°–99°).

24th.—Complains of stiffness and pain in groin and back. No more spasms.

25th.—He was sent to the convalescent hospital at Wimbledon, where he remained till Sept 6th, on which date he left, having had no recurrence of the symptoms, and being in good health.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

SEVERE GUNSHOT WOUND OF ANKLE; RECOVERY.

(Under the care of Mr. HAMILTON.)

FOR the following notes we are indebted to Mr. Henry Caddy, house-surgeon.

John G——, aged twenty, was admitted into the hospital on Dec. 27th, 1875, with gunshot wound of right foot. He had been at Birkenhead shooting small birds, and, while carrying his gun, with the muzzle downwards and in close proximity to the foot, by some accident it exploded, and the charge of small shot entered the foot. He was brought across the river in the steamer, a surgeon having his thumb on the femoral artery all the way. Three hours elapsed before he was admitted; he was very pale and faint, and had a feeble pulse. On examination the charge was found to have entered at the inner malleolus, and issued at the middle of the sole of the foot, leaving a bridge of skin and tissue half an inch thick, and about an inch and a half wide between them. The entrance wound was large, inverted and blackened, the exit very ragged and everted. When pressure was taken off the femoral artery the hæmorrhage was profuse, but the bleeding points could not be seen. Plugging did not arrest the hæmorrhage. Mr. Hamilton decided to divide the bridge of tissue, and it was not till this was done, and the whole extent of wound laid bare, that the arteries, the internal plantar and some small branches, could be secured.

When the skin had been divided an enormous wound was formed, and the extent of the mischief was more clearly seen. The bones injured were the internal malleolus—the end quite gone,—part of the astragalus, and the cuboid and scaphoid bones. The latter appeared to have been shot away completely. The bottom of the wound was covered with débris of bone and tissue. The length of the wound

from the ankle to the sole was nearly five inches, and the breadth four. It became a question whether immediate amputation would not be the safest course to adopt. It was, however, decided to try to save the foot. No shot was found in the wound. The wound was dressed with carbolic oil, and the leg and foot were put on an iron splint with two side splints and swung in a cradle.

Dec. 28th.—Passed a restless night; the foot very painful. Pulse 110; temperature 101°. The dressing not touched to-day.

29th.—Patient very uneasy and dissatisfied; his foot being very painful. Great thirst; tongue dry and furred. Foot dressed under the carbolic spray; the carbolic oil being again applied. Pulse 116; temperature 102°.

30th.—Foot easier, and passed a better night.

31st.—Wound beginning to discharge; is dressed twice a day under the spray. The leg was taken off the back splint, and laid on an outside splint, the patient turning on his side. As he gets very little sleep at night, he was ordered thirty drops of the sedative solution of opium at night.

Jan. 2nd.—The wound discharging, and beginning to gape very much. He is a very restless patient, and cannot lie long in one position; consequently his foot has to be lifted about a good deal. To meet this difficulty, he was again put on back splint with an outside wooden splint, and being securely fastened, the whole leg was turned in the cradle in whatever position he required.

3rd.—Had a better night. His leg easier in the cradle.

4th.—The wound continues to be dressed twice a day under the carbolic spray.

13th.—Wound presents a healthier appearance; shreds all separating, and granulations springing up. Takes his food pretty well, and sleeps better.

18th.—Wound healthy; all sloughs have come away; granulations cover the whole surface. The foot is in good position, still on the splints. The appetite is good, patient sleeps well, and has very little pain. The wound measures five inches long and two inches and a half broad.

28th.—Wound filling up very rapidly. He had a slight feverish attack last night, but that has passed off. He has still the same dressing, carbolic acid under the spray. Small pieces of bone have come away, but there is no bone visible now in the wound.

Feb. 8th.—An ulcer appeared on the heel, probably due to the dressing keeping the heel constantly damp, and to the pressure. The leg was therefore taken off the back splint, and laid on its side.

16th.—Edges of wound rapidly closing in. The patient from this day was daily placed on a perambulator, and wheeled into the open air.

March 30th.—Left the hospital. The wound had contracted into a deep fissure with the edges turned in, about two inches long, and about a quarter of an inch wide, from which there was little discharge. The foot was much thickened and flattened, but quite straight. He walked about with sticks.

July 16th.—The patient has now quite recovered; the wound is healed; he is able to walk long distances; he uses a stick, but more from habit than because he needs it.

Remarks.—At the time of admission it seemed almost hopeless to attempt to save the foot of this patient. The partial destruction of so many bones of the tarsus, the very large size of the wound, the openings into the articulations, and the persistent hæmorrhage, made it so. Of the means used which tended to produce the favourable result, the most important probably were: First, the perfect immobility which was secured to the whole joint, however much he might move the rest of the limb; the foot was placed at a right angle to the leg by means of a well-fitting splint, any inversion or eversion being guarded against, and not the slightest movement of the joint was allowed for ten weeks. Secondly, the careful dressing of the wound upon the antiseptic plan from the very first, so that the case was not complicated throughout its course by attacks of erysipelas or the formation of abscesses. Lastly, the avoidance of stimulants during the first few weeks; though the patient was weak and very much reduced by the severe injury he had received and the great loss of blood, yet his appetite was encouraged by all kinds of nourishing food, plenty of milk, without any form of stimulant, being administered.

Reviews and Notices of Books.

Atlas of Skin Diseases. Part I.: Eczema, Psoriasis, Lupus Erythematosus (Syphiloderma pustulosum). By L. A. DUHRING, M.D., Professor of Skin Diseases, University of Pennsylvania. Philadelphia and London: Lippincott and Co. 1876.

An Elementary Treatise on Diseases of the Skin, for the Use of Students and Practitioners. By H. G. PIFFARD, A.M., M.D., Professor of Dermatology, University of City of New York. With Illustrations. Large 8vo, pp. 375. London: Macmillan and Co.

Lehrbuch der Hautkrankheiten. Von Dr. ISIDOR NEUMANN, A.O., Professor der Dermatologie und Syphilis an der K.K. Universität zu Wien. Vierte Vermehrte auflage, mit 76 Holzschnitten. pp. 688. Wien.: W. Braumüller, K.K. Hof und Universitäts Buchändler. 1876.

IT is certain that no complaint can be made by the student or practitioner of any lack of useful works upon the subject of dermatology. He is now-a-days provided with every kind of aid in the way of small and large compilations, journals, original treatises and essays, atlases, photographic illustrations, epitomes, and the like. There can be little doubt that the supply in this respect is called forth by a real demand, which has been created by the greater attention which is being directed, in many countries, to the hitherto much neglected department of medicine—dermatology.

The three works now before us—viz., those of Neumann, Duhring, and Piffard, strikingly exemplify how much is being done in this field of medical practice. That three large works of the kind should issue from the press about the same time is a sign of how vigorously the specialty under notice is being cultivated. Our only fear is that, with an increasing number of aspirants to the position of cutaneous specialists—and this applies to the case of America particularly,—the literature of the subject will presently be overloaded with undigested treatises or hastily written compilations, which will not really add to the existing state of knowledge. At present this is not the case. We fancy, nevertheless, that we detect some little sign of hasty writing in one of the works before us—viz., that of Dr. Piffard. It is, of course, essentially a compilation, and to our mind the selections are not always judicious, considering that Dr. Piffard wishes his work to be regarded as an elementary treatise; and the sections on treatment are many of them very short and weak. Dr. Piffard remarks "that the present volume is intended to serve as an *introduction* to the more elaborate works upon dermatology, and to save the beginner from some of the (same) pitfalls which beset the writer's earlier studies." This is an odd description of a work embracing 375 pages. If the work be an *introduction* merely, what must the reality be. There are some matters upon which we join issue with the author. Amongst other things, we observe that Dr. Piffard rejects the term lupus altogether, and includes lupus under the head of scrofulides. He does not seem to know what rodent ulcer is, for he asks (p. 99), Is there, in addition to these (syphilis, lupus, and epithelioma, he means), a form of destructive ulceration clinically and anatomically distinct from either? He adds he has personally been unable to recognise it as a distinct affection, and he figures what is evidently rodent ulcer at p. 101, and remarks that it may with propriety be termed rodent ulcer or lupus!

Under the term rheumic diathesis he includes psoriasis, eczema, and pityriasis, but he does not prove the existence of this diathesis any more than Bazin does the equivalent one—*dartrous*. Urticaria is discussed in two pages and a half. Zoster is separated from its alliance with other forms of herpes, and regarded as quite distinct from them. The

author, in the section on elephantiasis, should have referred to the supposed connexion between this malady and the obstruction to the lymphatics caused by the presence in them of *filariæ*.

Dr. Piffard notices the peculiar "hæmorrhagic specs" of phthiriasis described by Dr. Fox, but incorrectly talks about the "bites" of pediculi; and whilst describing "impetigo contagiosa" at length as a distinct disease inclines to think it has a vegetable parasitic origin—a point strenuously denied by the dermatologist who first described the malady.

Notwithstanding these criticisms, which we make in no unfriendly spirit to Dr. Piffard, we can say with truth that the work contains a good digest of the general subject of dermatology, and the micro-photographic illustrations are useful additions. The general get-up of the work is unexceptionable, and the book forms a handsome volume.

We are glad to welcome another edition of Neumann's excellent work, which has come to be regarded as one of the best treatises on skin diseases yet written, and has been issued in separate English and American editions. The work has been improved in many respects. It contains excellent accounts of the most recent microscopical researches under the heads of the various skin diseases, an additional number of illustrative woodcuts, a full formulary at the end for the first time, and some new chapters; and we may especially mention the chapter on the "General Pathology of Skin Diseases," which furnishes a capital summary of cutaneous pathology as a whole. A good description of the nature, character, and anatomical changes in bromide eruption appears in the present edition, and we have read it with interest. The reader will also find much new matter under the heads of Hyperæmia, Anatomical Changes in the Sweat-glands, Pemphigus, Acne, Impetigo herpetiformis, Sclerema, Leucoderma, Lupus, and other diseases; in fact, the author has brought the work fully up to the level of our existing knowledge. But there is another thing which in our view greatly enhances the value of the present edition, and that is the increasing importance attached to general treatment. Naturally the principles of the Vienna school prevail in the matter of therapeutics, and stress is chiefly laid upon the efficacy of local measures in the treatment of skin diseases. In the former edition, indeed, comparatively little was said about general treatment; but in the present one a great improvement is to be noticed, and we shall be surprised if in the future our author does not contrast strongly with his Vienna *confrères* in this particular matter. We are sure that the work will inspire increased confidence by the change we have referred to. We congratulate Dr. Neumann upon the excellence of his work in its present form.

Dr. Duhring's Atlas is a work which has our entire commendation. It certainly supplies an urgent need in American medical literature, and it is a costly venture which we hope will be appreciated, and meet with the success it deserves. The present is the first of eight or ten quarterly parts, each containing four chromo-lithographic plates with accompanying text. The present part contains illustrations of eczema (erythematosus) psoriasis, lupus erythematosus, and pustular syphilis, which are successful executions of the original diseases they represent. The artist has taken a good deal of pains, not only with the representations of the actual diseases, but with the drapery, the anatomy, the flesh-colouring, and other minor points in the pictures, which are therefore very effective, and apparently no cost has been spared. The accompanying text is excellent, but this was only to be expected from so careful, able, and painstaking a worker as Dr. Duhring. We are glad to notice that the author lays much stress upon the fact that the same skin diseases "are more or less dissimilar in external form as they occur in one country or another," and that he will attempt to indicate in his atlas the peculiarities which characterise cutaneous maladies in America. When completed, the atlas will consist of forty plates, or perhaps less, but sufficient to illustrate pictorially the main varieties of the skin diseases most usually met with. Considering how much attention is now beginning to be paid to the study of dermatology in America, we cannot but regard the appearance of the atlas as most opportune, and if the promise in the first part be fulfilled in the succeeding issues, the work must receive the generous support of the American profession especially, which it so fully deserves.

A Dictionary of Hygiene and Public Health: comprising Sanitary Chemistry, Engineering, and Legislation; the Dietetic Value of Food, and the Detection of Adulterations. By ALEXANDER WYNTER BLYTH, M.R.C.S., F.C.S., Analyst for the County of Devon, and Medical Officer of Health for the North Devon Combination of Sanitary Authorities. 8vo, pp. 672. London: Griffin and Co. 1876.

THIS work is designed by its author for "a book of reference which, in one volume of convenient size, shall contain the information on sanitary topics at present only to be gathered from the perusal of many separate and distinct treatises." The work is intended for unprofessional as well as for professional readers, and it professes to contain, in addition to other matters, an abstract of the different sanitary laws in force in England, arranged with reference to the particular subjects to which they refer. The author says that "the value of an undertaking of this kind must always be in exact proportion to accuracy and completeness," and in the few remarks we have to make upon the book we shall be guided by this proper estimate of an author's responsibilities.

The idea of the work is derived from Tardieu's "Dictionnaire d'Hygiène Publique." Mr. Blyth at first had proposed to himself to translate and adapt this work for English use, and he obtained the learned professor's consent to do this. "But this plan was soon and of necessity abandoned," writes Mr. Blyth, "both on account of the exclusively French character of the work and of the rapid strides made by sanitary science since the publication of the last edition." Nevertheless, Professor Tardieu's name is placed with Mr. Blyth's on the cover of the book.

This by the way. Of more importance is the list of principal authorities to which Mr. Blyth refers as having been consulted by him in the preparation of his work. So far as Mr. Blyth is concerned, the Sanitary Departments of the Home Office and Privy Council Office previous to 1872, and the Sanitary Department of the Local Government Board, do not appear to have existed. We shall presently see that there is an omission of almost everything which refers to official information—the kind of information of chief moment to sanitary authorities, their officers, and all those who have to deal with them.

It is hardly to be expected that one individual would write equally well on all the subjects which are included under the terms "hygiene" and "public health." It is to be expected that he would display some proclivities and some specialities of knowledge. It is obvious that Mr. Blyth's proclivity is for chemistry; and in so far as chemistry is available for purposes of hygiene and public health the articles in this dictionary are good, and some leave little to be desired. Numerous articles are devoted to food and its adulterations, the most recent methods of examination being given, the chemical processes being well described. Chemistry, however, is not hygiene, neither is it public health, and when we come to those sanitary questions which have none or but incidental relations to

chemistry, we find several omissions and deficiencies. Thus—to take illustrations promiscuously as they present themselves on turning over the leaves:—Ague has four columns given to it, but nothing is said of the present status of the disease in England, of the researches in this respect of Dr. Whitley and others, and of our present requirements as to the malady. To the important question of "cesspools" one column and about a sixth is devoted, although ill-kept, ill-constructed, and foul cesspits are described as "the most prominent and frequent nuisances in villages and elsewhere that have to be dealt with." There are few subjects upon which sanitary authorities and individual householders require more practical help, but Mr. Blyth simply repeats the old advice as to water-tight receptacles, utilisation of sewage on land, use of ashes, frequent emptying, without one single hint how these requirements may be met when difficulties really arise. The article on "Cholera" is remarkable for the errors of the historical portion, and the insufficiency of what it states as to the mode of propagation of the disease. It gives in full the Orders of Council as to Cholera in Ships of July and August, 1871, no longer in force, instead of the Order of the Local Government Board, which has been in force since July 17th, 1873; and omits the Memorandum of the Local Government Board as to Precautions against Cholera. Not a word, moreover, is said in the article about the measures to be taken by sanitary authorities when cholera exists in the country. Under the word "Closets" are described earth-closets, Taylor's dry closets, and water-closets; but of the various closets upon which sanitary authorities have been so largely experimenting, and which have the most important bearing upon sanitary work, there is not a word. "Clouds" occupy a column and three-quarters; "Dust-bins," and all the important practical questions arising out of them, fifteen lines! The subject of "Privies," where the deficiencies of the article on "Closets" might be expected to have been made good, is dealt with by the description of a single pail-closet; but of the now well-known principles which should govern all privy construction and management nothing is said. The article on "Quarantine" is written without a reference to the Quarantine Act. Mr. Blyth, in this article, informs us that "no less than four International Sanitary Conferences have been held" since 1866, "the last one in 1873"; there was one Conference in 1866, and one in 1874. The article on "Sewers," while bringing together a quantity of promiscuous information, some of which, like the "tub system," the "Eureka system," and the "Goux system," have no business in it, omits all reference to the official memorandum of the Local Government Board on the subject prepared by Mr. Rawlinson. The nature of this omission will be best understood when it is stated that the principles of sewerage contained in this memoranda are those which govern the judgment of the Board in approving schemes of sewerage proposed by local authorities, and which have governed almost the whole of the schemes of sewerage carried out in this kingdom for the past twenty years. In the article on "Vaccination" there is no allusion to the principles on which public vaccination is carried out in England, nor to the explanatory memoranda of the Local Government Board on the same, nor to the instructions of that Board to vaccination authorities when small-pox is epidemic!

We have touched upon some of the more marked omissions and deficiencies of this work. They relate to the sanitary work of sanitary authorities, and the common everyday necessities of families and individuals. It is impossible to deal adequately with the questions touching these matters without recourse to the abundant official information which exists on the subject. Sanitary work in England is, above all things, a work of sanitary authorities, and the conditions of this work and the principles relating to it are best obtained from the official records which are concerned with it. This appears to have been overlooked by Mr. Blyth, hence the defects in his work to which we call attention. These defects are well within the reach of remedy, and we trust that a second edition will soon give Mr. Blyth the opportunity of removing them.

Wine and its Counterfeits. By JAMES L. DENMAN. Published by the Author.

MR. DENMAN labours hard in the cause of natural wines, and loses no opportunity of explaining the nature of plastered and fortified wines. In the little pamphlet now under notice he deals with the whole question, and presents much reliable information on matters which should engage the attention of the medical profession.

REPORT
OF
The Lancet Sanitary Commission
ON
ENGLISH WATERING-PLACES.

WORTHING AND LITTLEHAMPTON.

THE two watering-places which form the subject of our report this week, though comparatively of recent origin, have acquired a considerable degree of repute as health-resorts, and their popularity in this respect is undoubtedly increasing. Their attractions consist simply in the natural advantages of situation and climate, for they lack the noisy pleasures and excitements of Brighton, Ramsgate, or Scarborough, and offer only pleasing scenery, extensive sands, a dry, equable, and bracing air, and, above all, an opportunity for quiet and repose. Both towns are in the combined sanitary district of West Sussex, and are under the charge of Dr. Charles Kelly, to whose interesting reports we have frequently drawn attention in our columns. They face almost directly south, and are protected on the north and north-east by the South Downs, which are about two miles distant. The soil consists of a loamy clay of an average depth of ten feet, under which is a layer of beach gravel and then chalk. The natural drainage of this track goes east and west, and is carried off by the rivers Adur and Arun respectively.

WORTHING.

The urban sanitary district of Worthing in 1871 contained an enumerated population of 7413, which, with the recent addition of the parish of Broadwater, may be estimated for the middle of the present year to have increased to 8800. From the Registrar-General's returns of the mortality in districts and sub-districts containing the principal English watering-places during the spring quarters of 1874, 1875, and the present year, the rate for Worthing is—

	1874.	1875.	1876.	Average.
Total death-rate per 1000... ...	12·9 ...	19·6 ...	15·5 ...	16·0
Zymotic death-rate per 1000...	1·0 ...	0·3 ...	1·6 ...	0·9

A return that must be considered highly satisfactory. Worthing may be described as consisting of a sea front about half a mile in length, with irregular groups of houses. This line is unequally bisected by the main street, which opens opposite the pier and winds backwards through the town towards the station. To the right and left of this lie houses, terraces, &c., mostly with gardens, so that there is plenty of open space in the town, and the houses are not closely

packed together, as is too frequently the case at the majority of watering-places. Trees abound through the town, and afford a pleasant shade and relief from the glare. The worst part of Worthing is situate near the station; the houses there are mostly only provided with cesspits, which by overflowing pollute the surface-wells and are otherwise a nuisance. These houses have recently been a partly supplied with water from the waterworks, and steps are being taken to connect them with the town sewers.

The town of Worthing, with the above exception, is well drained, and the sewers are sufficiently ventilated. Unfortunately, in constructing the sewers, the enormous quantity of water in the subsoil coming from springs in the chalk was overlooked, and no provision was made for its disposal; consequently, after the slightest rainfall the quantity of water making its way into the sewers is enormous, and often floods them. The sewage is pumped from the sewers and distributed by irrigation on a farm of about 140 acres. Owing, however, to the dilution of the sewage by the frequent and excessive influx of subsoil water, the undertaking has not proved successful; so great, indeed, is the quantity of diluted sewage sometimes to be dealt with, that an overflow occurs, and the excess has then to be turned into a ditch, and from thence finds its way into the sea. To remedy this evil the authorities have determined to do away with the farm and carry the drainage to the sea and discharge it there about two miles and a half from the town, at a point midway between Worthing and Lancing. As the fall they will thus obtain will be considerable, they hope effectually to dispose of the subsoil water as rapidly as it is poured into the drains, and at the same time do away with the necessity of pumping, and thus save a considerable item of expense. Whilst visiting the present pumping-station we were shown a system of sewage filtration on a reduced scale, patented by Messrs. Willett, Harris, and Lund. As any method of dealing with the solid matters of sewage is of interest just now, we will briefly describe it. The sewage is passed into a tank about six feet deep, filled with coal-charcoal with a layer or two of burnt brick; rising through this, it overflows through a a perforated zinc fence into a second tank two feet and a half deep, filled also with coal-charcoal and rusty iron; then on in a similar manner successively into four more tanks filled with the same material, and finally discharged. The effluent water was clear and bright and perfectly inodorous, and, in our opinion, quite fit to be returned to any stream or river. The action of the system is both mechanical and chemical; the breaking the water up into innumerable streams, when passing from tank to tank through the perforated zinc fence increases greatly the oxidation of ammonia to the condition of nitrous acid.

Worthing is supplied with water by the town waterworks, which are under the control of the town authorities. The present supply is decidedly unequal to the wants of the town during the season. The water is obtained from a well fifty-five feet deep sunk in the chalk, and the water is pumped up into a water-tower, and thence supplied to the inhabitants. The total daily supply that can be given at present, pumping night and day, is only 240,000 gallons. Estimating the town, when full of visitors, to contain a population of 16,000, this gives only 15 gallons per head per diem for all purposes; the quantity distributed, however, ought to be fully 25 gallons per head. The supply is supposed to be constant, but, owing to the scarcity of water, it is only constant during the day, no water being supplied for some hours during the night. A constant supply with occasional intermittence must always be regarded as extremely dangerous. The authorities are now sinking another well, which they estimate will yield them 300,000 gallons daily, with only ten hours' pumping. This well is of great depth, having been sunk 400 feet in the chalk. When this supply is obtained they will have sufficient water for all purposes, and it is to be hoped they will then keep their pipes constantly charged with water.

No regular house-to-house inspection has been instituted to detect local sanitary deficiencies. The inspector of nuisances, however, is also an officer of the Water Company, and in this way many defects come under his observation and are remedied. Still we think the lodging-house keepers would act wisely if they instituted among themselves a register in which the particulars as to the sanitary condition of each lodging-house could be entered.

Worthing possesses a small iron hospital for infectious diseases; it contains two wards, which are airy and suitable. Last year, during the autumn months, Worthing had a high death-rate from diarrhœa; 9 deaths having been recorded in the registration sub district,—giving an annual mortality of 2·9 per 1000: of these, one was a male over seventy years of age, whilst seven were infants under one year. Though no particular insanitary condition seems to have caused this mortality, still we always regard a high death-rate from diarrhœa with suspicion. We hope that when the drainage is extended and the water-supply is made perfectly constant and abundant, this important element in swelling the death-rate returns will be considerably diminished. As a set-off to the high death-rate from diarrhœa, we are pleased to notice the freedom of the town from typhoid fever. Indeed, Worthing has for the last two years had an extremely low return of deaths from the class "fever," and compares favourably with other watering-places.

LITTLEHAMPTON.

This charming little watering place is fast rising into repute, not only on account of its delightful situation, but also on account of its acknowledged healthiness. That this character is fully deserved, we think the following table clearly shows:—

	1874.	1875.
Total death-rate per 1000	14·7 ...	10·8
Zymotic death-rate per 1000 ...	1·1 ...	1·4

Whilst the return for the spring quarter of the present year gives the annual death-rate of 14 per 1000, and the deaths from the zymotic class are 0·0! This exceptional healthiness consists (as pointed out by Dr. Kelly in his last report) "chiefly from the absence of overcrowding; its sheltered situation, the north and north-east winds being kept back by the South Downs; in the isolated position of most of the cottages, which materially helps to prevent any spread of fever; and in the prevalence for the greater part of the year of a south-west wind, which, blowing across the ocean, can carry with it few elements of pollution." But if the town is at present free from the elements of pollution that bring disease and death, the question arises—how long will it continue so? As the popularity of the place increases, so will the overcrowding; in the meantime, no sufficient provision has been made for the drainage of the town, and the water is drawn entirely from wells. The future prosperity of Littlehampton depends wholly on the spirit and manner with which these important schemes are dealt with; and we shall be pardoned if we extend our remarks in this direction.

Littlehampton may be described as consisting of two towns—the old, situated near the station, about three-quarters of a mile from the sea; and the new, which is built close to the beach, and consists principally of a row of lodging-houses. Extensive fields separate the old from the new town. The river Arun flows to the west of both. Two sewers open into the river—one from the old town, about three-quarters of a mile, the other from the new town, about a quarter of a mile, from the entrance of the river to the sea. As yet, however, little sewage finds its way into the river, for the majority of the houses of the town are provided with cesspools, a few of which only are connected with the sewers in question. As, however, thorough and complete drainage has been determined on, the question of a suitable outfall becomes paramount. It is evident that the discharge of the sewage in its present condition into the Arun must be discontinued, and it has therefore been proposed to carry the sewers under the bed of the river to the opposite side furthest from the town, there receive it into tanks, and dilute it with fresh water from the river till it is sufficiently diluted, according to the recent Act, for it to be allowed to be poured into the sea. Such a scheme could only be carried out at great expense, which would severely burthen the ratepayers. The plan we would recommend would be to unite the sewers of the old and new town at a point about a hundred yards from the present outfall of the sewer from the new town, and to receive the joint sewage into a series of intercepting tanks, so that the liquid overflow alone should pass into the river, whilst the solids could be frequently removed by pumping into barges and carried out to sea. Such an arrangement, in the case of Littlehampton, could be easily and inexpensively carried out.

The tanks would cause no annoyance if properly constructed and attended to, whilst the spot where they would be constructed is remarkably open and free from surrounding houses. We think the system of sewage filtration, after the plan of Messrs. Willett, Harris, and Lund, as briefly described in our account of Worthing, might be adopted with success at Littlehampton. But the chief requirement is a good water-supply. At present the ordinary wells are depended on. These wells are in close relation to the cesspools, and a considerable degree of pollution must necessarily occur. Steps are being taken, we understand, to start waterworks, and obtain a supply of water from the chalk. We hope soon to hear of their completion, for this question of pure water is of more pressing necessity than even that of drainage.

In conclusion, we wish to draw attention to a very absurd division of sanitary work at Littlehampton. The urban district of Littlehampton is under the control of Dr. Kelly, the medical officer for the whole of the West Sussex district. The port of Littlehampton is superintended by a separate officer at a small salary. Such a division of interests is practically absurd, as for sanitary purposes the port and urban district ought to be included in the same district. In large ports like London, Liverpool, and Glasgow it is of course important to have a specially trained officer to undertake the sanitary duties; but in little ports to make such division of labour and distinction of duties is only a waste of force and a waste of money. Unless a most perfect *entente cordiale* subsists between the two officers, fever may be present on the ships and conveyed to the shore without the urban authority being aware of the fact, and *vice versâ*. We hope before next session closes to see some steps taken by which such anomalous arrangements may be done away with.

REPORT OF THE COMMISSIONER OF POLICE OF THE METROPOLIS FOR 1875.

FEW persons are aware of the multifarious duties that devolve upon the Metropolitan Police. Not only have they to maintain law and order generally, and protect property, but they have to control the traffic of the streets, to take in custody stray dogs, to look up lost and missing children and adults, to examine door- and window-fastenings, to see to the carrying out of the Smoke Nuisance Abatement Acts, and to inspect the common lodging-houses of the metropolitan area. Yet these duties are satisfactorily accomplished by the moderate force of 8991 men, who are distributed over an area of 688·3 miles. The total number of persons apprehended by the police in 1875 was 72,606, an increase of 4903 over the arrests in 1874. This increase is accounted for by the increased drunkenness among the population. No less than 87 persons were killed in the streets, and 2704 were maimed or injured. We have commented in another column on this item, and explained the reason why in this report the number of persons killed in the streets is put so low as compared with the average for the last six years (123). Special remedies are required to put an end to, or at least to lessen, this wholesale slaughter. The construction of subways in the neighbourhood of crowded thoroughfares would be an immense protection to the aged, the timid, and short-sighted. But above all, heavy traffic, such as railway vans, coal carts, &c., should not be permitted to traverse the streets during the crowded periods of the day. The police have apprehended 18,989 stray dogs, of which 1736 were subsequently claimed by their owners. The police certainly have succeeded in clearing the streets of the wretched animals that formerly wandered homeless about the streets and were a terror to the timid and a distress to the kind-hearted. We wish the police had also power to destroy all the stray cats that prowl about the streets at this season of the year. The condition and sufferings of these wretched creatures, shut out from their homes when the family is away, are a disgrace to humanity. The police have restored 5225 children to their friends, and 688 adults who had left their homes were traced. Householders continue to be careless in protecting their property, 23,209 windows and doors having been reported as being found open or unfastened at night. We regret to find that none of the new description of cabs introduced from time to time seem yet to answer the requirements of the London streets so well as the old-established Hansoms and "four-wheelers," and the company formed to run a new class of carriage have found it necessary to withdraw. Nor does the cabman seem to improve, for there is no diminution in the number of convictions for drunkenness and furious driving. The police also have the inspection of 1241 registered common lodging-houses, accommodating about 27,000 persons. In a commission appointed by THE LANCET last year, we credited the police sanitary inspectors for thoroughly doing their duty in this respect, for, as our Commissioners remarked, "but for the constant pressure of the police sanitary inspectors and the zealous co-operation of the medical officers of health, the lodging-houses would soon relapse into the disgusting and dangerous condition which the Act of 1851 was intended to reform; and it is altogether evident that that beneficent law has, on the whole, been ably carried out in the metropolitan district." We observe that this paragraph is quoted in the present report. Appended to Colonel Henderson's report is one made at the latter end of the year 1874, by the Chief Inspector of Common Lodging-houses, containing matter of interest relating to the habits and dwellings of the poorer classes.

The topics entered on in this report are so full of detail as to require a separate notice and more attention than we can give it on the present occasion. It is, however, replete with information, and well deserving of separate perusal. We cannot conclude our remarks, however, without offering our tribute of praise as to the general conduct of the police. Every year we have, no doubt, frequently to comment on the mistakes and serious indiscretions committed by members of the force, but these cases are few compared with the large body of men engaged in arduous and responsible duties—duties requiring both tact and temper. And although it is the duty of the Press to comment severely on such shortcomings when they occur, it is likewise our duty, when the occasion presents itself, to remind the public that for one error committed there are also a thousand duties noiselessly and efficiently performed.

OFFICIAL REPORT ON AN EPIDEMIC OF TYPHOID AT GUNNISLAKE.

DR. BLAXALL'S report to the Local Government Board on an outbreak of typhoid at Gunnislake, in the parish of Calstock, has been issued. Calstock is an old sinner. Dr. Blaxall had already visited the parish in 1871, and reported on its sanitary condition. He then found that little or nothing had been done to remedy evils pointed out by Dr. Bristowe, who had made an official inspection of the place ten years previously. Excremental and other filthy nuisances abounded, polluting the atmosphere and saturating the soil, to the imminent risk of contamination of the water-supply. It was shown in Dr. Blaxall's report in 1871 that fever had been fatally present in each of the seven years, 1864-70; that measles and scarlatina had been epidemic in 1864, and scarlatina again in 1869; that small-pox and scarlatina were present at the time of his inspection, and that no precautionary measures were adopted to prevent the spread of infectious diseases. To come to the outbreak of enteric fever at Gunnislake last year. The first case appeared in August, in a man who came from Liverpool to his home, apparently in good health, but in five or six days manifested symptoms which developed into a very severe case of typhoid. Following upon this, 143 other cases occurred, and the order in which they took place is given tabularly in the report. Of the total seizures, many of which were of a very bad type, eight proved fatal. The fever was almost entirely confined to the central parts of the village, a fact which suggested its being due to a cause acting solely upon that locality. No suspicion was attached to the milk-supply or to other articles of diet, and there was no proof that sewer gas had played a distinctive part in the causation, but there was clear evidence pointing to the

water-supply, and confirming the opinion expressed by the medical officer of health to the effect that the outbreak was occasioned by drinking contaminated water. The fever locality corresponded with the area supplied with water from the *reservoir*, the bulk of the attacks occurring among persons who derived their water either habitually or occasionally from this source, whereas very few suffered of those who had their water from other sources (again shown in the report by a tabular statement). Dr. Blaxall then proceeds to show the manner in which this water-supply probably became contaminated. His conclusions that the epidemic of typhoid was caused by drinking the water of the reservoir, which was polluted with excremental matter, containing specific contagion conveyed by drainage and percolation to the tank that feeds the reservoir, are borne out by the detailed account of the inspection given.

The report goes on to deal with general conditions affecting health in the locality, such as sewerage and drainage, excrement removal and disposal, water-supply, piggeries and other nuisances, and sanitary action and administration, all of which we commend to the careful study of the local authorities. The following recommendations to the latter body by Dr. Blaxall, which we summarise, bring the report to a close. 1. In place of the unwholesome middensteads now in use the authority should see that every house is provided with suitable privy accommodation, and should exercise strict supervision over such. Some dry system, it is thought, would best meet the requirements of the district; for information on this subject reference should be made to the "Report of the Local Government Board on certain means of preventing excrement nuisances in towns and villages." 2. All thickly peopled parts of the parish should be provided with proper sewers or other channels for the removal of slop, waste, and surface water, and due provision should be made for the disposal of sewage. 3. Means should be taken to insure to each village an adequate supply of wholesome water; polluted wells should be at once closed. 4. No accumulation of house refuse or manure should be permitted contiguous to dwellings. 5. Hospital accommodation for cases of infectious disease should be provided. 6. The inspector of nuisances should be supplied with a book in which to keep a continuous record of the sanitary condition of premises in respect of which sanitary action has been taken.

THE VIVISECTION ACT.

THIS Act extends to the United Kingdom, and has immediate operation. The preamble recites that it is expedient to amend the law relating to cruelty to animals which, for medical, physiological, or other scientific purposes, are subjected, when alive, to experiments calculated to inflict pain. The law as amended is contained in twenty-two sections. The statute commences with the declaration that a person shall not perform on a living animal any experiment calculated to give pain, except subject to the restrictions imposed by this Act. Any person performing or taking part in performing any experiment calculated to give pain in contravention of this Act shall be guilty of an offence, and liable for a first offence to a penalty not exceeding £50, and for a second or subsequent offence, at the discretion of the court, to a penalty not exceeding £100 or to imprisonment for a period not exceeding three months. There are general restrictions as to the performance of painful experiments on animals. The experiments must be with a view to the advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or prolonging life or alleviating suffering; the experiment must be performed by a person holding a licence from one of Her Majesty's principal Secretaries of State, and in the case of a conditional licence, or of experiments for the purpose of instruction in a registered place, the animal must during the whole of the experiment be under the influence of some anæsthetic of sufficient power to prevent its feeling pain; the animal, if the pain is likely to continue after the effect of the anæsthetic has ceased, or if any serious injury has been inflicted on the animal, is to be killed before recovery from the anæsthetic; the experiment shall not be performed as an illustration of lectures in medical schools, hospitals, colleges, or elsewhere, and shall not be performed for the purpose of attaining manual skill. There are four provisos to the restrictions which are set forth. In the other sections there are special restrictions as to painful experiments on dogs, cats, &c. Any exhibition to the general public of experiments on living animals is strictly prohibited under heavy penalties, and any person "publishing any notice of such intended exhibition by advertisement in a newspaper, placard, or otherwise, shall be liable to a penalty not exceeding £1." The Secretary of State may license any person whom he may think qualified to hold a licence to perform experiments, and may insert the place where they are to be performed, and may require reports to be made to him of such experiments. The Secretary of State "shall cause all registered places to be from time to time visited by inspectors, for the purpose of securing a compliance with the provisions of this Act, and the Secretary of State may, with the assent of the Treasury as to number, appoint any special inspectors, or may from time to time assign the duties of such inspectors to such officers in the employment of the Government who may be willing to accept the same as he may think fit, either permanently or temporarily." Any application for a licence and a certificate must be signed by one or more of the following persons:—The President of the Royal Society, the President of the Royal Society of Edinburgh, the President of the Royal Irish Academy, the Presidents of the Royal Colleges of Surgeons in London, Edinburgh, or Dublin, the President of the Royal Colleges of Physicians in London, Edinburgh, or Dublin, the President of the General Medical Council, the President of the Faculty of Physicians and Surgeons of Glasgow, and the President of the Royal Veterinary College, &c., but in the case only of an experiment under anæsthetics with a view to the advancement, by new discovery, of veterinary science; and also by other persons mentioned. A certificate may be given for such time or for such series of experiments. A copy of certificate to be forwarded by the applicant to the Secretary of State, but not available until one week after a copy has been forwarded. The Secretary of State may at any time disallow or suspend any certificate given under this (11th) section. A judge is empowered to grant a licence for an experiment when necessary in a criminal case. A justice may grant a warrant on grounds that experiments are made by unlicensed persons in places not registered under the Act, with penalties to be imposed. Offences may be prosecuted in a summary manner. A person accused may elect to be tried on an indictment, and not by summary jurisdiction. An appeal is given in England to the Sessions, and the manner of procedure in Scotland and Ireland is pointed out. The Act is not to apply to invertebrate animals, and the medical profession is protected by the twenty-first section, which declares that "a prosecution under this Act against a licensed person shall not be instituted except with the consent in writing of the Secretary of State."

METROPOLITAN HOUSE DRAINAGE.—A reply from the Metropolitan Board of Works has been received by the council of the Society of Arts with respect to certain representations laid by the latter before them by deputation on the subject of house drains and their connexion with the main sewers. The council suggested that an amended Act should be passed to the effect that all house drains connected with the public sewers should be placed under the inspection and control of the local sanitary authorities, and pointed out that although considerable powers with respect to drains, &c., were conferred on the local authorities, yet in practice they were not sufficiently carried out. In his reply Mr. Wakefield, clerk to the Metropolitan Board, drew the attention of the council to the extensive powers, to compel owners of house property to provide drainage, conferred upon the vestries and district boards by the Metropolitan Local Management Acts of 1855 and 1862; but stated that should they be able to demonstrate to the Board that there is a deficiency of such powers, the Board apprehend that no difficulty would be made by Parliament in granting all needful amendment.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 2, 1876.

PROBABLY no public measure involving a proposal to spend money is likely to command support by its own merits alone. The longer it has lain under the eye of the community, on the table of the Legislature, the less will be its chance of success. The length of time a grievance has existed generally tells against the plea for redress. The circumstances, that it has been long-recognised, that it has been frequently exposed, and that there is little or nothing to be added to the proof of *urgent* need for a remedy, given perhaps years ago, so complicate the political difficulty, that a new argument or pressure of some kind must be brought to bear on the inertia of public or parliamentary opinion before the stagnant question can be revived. Sanitary reform in all its departments is peculiarly exposed to these retarding influences. It is vain to expect the masses will be scared by the discovery that they, and their fathers before them, have been persistently breathing an atmosphere charged with irrespirable gases, habitually feeding from pots wherein lurks "death," and drinking waters infected with the germs of disease. It is consoling, rather than disturbing, to the mind awakened to such a consciousness — if it believes the story — to reflect that it has passed through enormous perils, and yet lives to tell the tale. There is a secret gratification in the thought that the stock must be especially good and strong, the constitution robust, the life sound and long, that surmounted these difficulties. We often think sanitary reformers, with admirable intention doubtless, are apt to pile the agony a little too high when preaching to people not educated up to a proper fear of infection, and decorous dread of disease-laden dirt and general unhealthiness. It is like telling a hale and hearty man of sixty summers, with the mellow glow of mature life brightening every feature, that he has undermined his constitution with drink, that his whole habit of existence has been a mistake, and that, unless he turns over a new leaf, abstains from stimulants, and adopts some clever craze of this wondrously intelligent nineteenth century, he will infallibly die. Such teaching tells against, instead of for, the doctrine we desire to promulgate. It pours contempt on rational prudence. When a question of real importance has been thus mismanaged, inflated until it has collapsed, the effort to advance its interests should take a fresh shape, and, if possible, be applied in a new direction.

Unfortunately this change is extremely difficult to compass in regard to some of the most important and pressing questions of the day—notably that of river pollution. Every argument has been urged and exaggerated, used and abused, to convince law-makers and law-breakers that the practice of throwing sewage into water-courses from which people draw their supply of drinking fluid—nearly four and a half pounds a day—is neither safe nor economical. It is this last view of the subject we are most anxious to enforce. The growth of public opinion expressed in recent legislation has changed the venue and to some extent altered the aspect of the suit. It is now with specific instances of neglect or wrong-doing, to be tried at local or legal tribunals, we shall have to deal. The pollution, or non-pollution, of rivers has come to be a simple money question. Vested interests, local interests, trade interests, landlord and ratepayer's interests, stop the way of a great sanitary reform. It is time the wisdom of meeting objections raised by obstructive selfishness, with a direct appeal to the very interests arrayed against the measure, should be recognised and acted upon. Indeed, if those who now hinder could be brought to see the facts of the case, they would help. A plentiful, and therefore cheap, supply of food is the first economic condition of prosperity in a populous country. That being conceded, it is difficult to understand why intelligent people, with a strong sense of prudence, persist in allowing fertilising material, which properly applied would have the effect of multiplying the yield of nearly every description of soil in England, to be systematically wasted. We are not now complaining that the agent is thrown where it creates a nuisance, and causes greater expense. Our argument is limited to the question of *waste*. Why cast out as useless what it would be worth while as a piece of agricultural and grazing business to purchase and pay for?

It would be difficult to find even a plausible answer to this last query, if society throughout its component classes and integral parts were not influenced by one engrossing, controlling thought. The preservation, the advantage of the *individual*, is the dominant idea. Underlying all the beautiful and impressive theories of benevolence and philanthropy, patriotism and public prudence, there can be easily detected the selfish impulse to get rid of every burden that can be shifted to the shoulders of somebody else—no matter who,—and to reap the advantage of efforts and enterprise which have cost the gainer neither money nor pains. The individual land- or house-owner will do nothing the parish can be compelled to do; the parish transfers every obligation that can be forced upon the county; the county draws as largely as practicable on the central fund; and the same process is carried to the utmost limit in the relations of the several departments of the State from the commonwealth to the Crown, and back again from Sovereign to people. This universal endeavour to shift the burden from our own to other shoulders is the secret of most of the economic mysteries which perplex the social philosopher, and must go far to unsettle his faith in human nature, if not explained. There is, for example, no doubt in any reasonable mind as to the wisdom of utilising sewage and the waste involved in throwing it away; but the local questions: who is to discharge the obligation of a first outlay in constructing necessary works? will the speculation be speedily remunerative? mixed up with minor matters of difficulty attending the provision of land and other details, so embarrass the practical question, that while vestries, courts of quarter session, landlords, manufacturers, people with those troublesome belongings known as "rights," are disputing how the reform shall be accomplished and at whose cost in the first

instance it shall be carried out, the wilful pollution continues and the waste is not stayed.

Throwing away sewage is throwing away money. The field of inorganic nature is worked by the multitude of vegetable organisms, and the product is a mass of material available for the food of man and beast. Without this supply neither can live and thrive. They are both dependent upon the primary order of workers. In the next zone of the system of life, we find man feeding in part on the beast. Instead of economising the supply furnished by the vegetable world, this animal-feeding-with-animal-food intensifies the need of vegetable produce. The beast must be fattened that man may live well and luxuriously. There is accordingly an increased and increasing demand for *vegetable* food as civilisation advances and the population augments. It is important to recognise this circumstance. Not only must the land yield more because there are a greater number of human mouths to feed, but a larger relative proportion of these superior organisms, as prosperity increases, elect to take their supplies through the animal kingdom. This is not an economical method, but it is one to which the supply must be adapted, and the luxurious practice of meat-eating necessitates a considerable increase in the quantity of vegetable organism the soil is required to support. It is therefore pure wilfulness to intercept the return of the increased material, drawn from the earth through the animal kingdom, by diverting sewage from the land and throwing it into the sea. In old times when comparatively little meat was consumed, the sewage could, and did, find its way back to the soil. By our modern refinements and the drainage rendered necessary by sanitary contingencies of the gregarious life of men in cities and towns, we have instituted a system which effectually breaks the normal circle, and cuts off the return. A moment's thought must make plain to any thinker that this arrangement cannot be permanent. It would be possible to work out in figures the precise period when the land must be finally exhausted by the diversion of sewage. Assume any quantity as the total of available productiveness in the soil; deduct the proportion of this quantity extracted each season by the crops of grain, grass, and other vegetable products; estimate the proportion of fertilising material returned by the flocks and herds; the difference between these two proportions of the original quantity will represent the amount consumed or appropriated by man. And the whole, or nearly all, of this is diverted and cast into the sea. We are even now contemplating special arrangements to carry it farther from the point at which it is urgently needed. The result of a calculation worked out on the lines indicated may not be as sensational as that which scared the country a while ago in respect to the coal measures, but it will be incomparably more important in the long run. A substitute may be found for the fuel we use so recklessly, but there can be nothing to replace the food raised in the country except supplies obtained from abroad at a heavy cost, and subject to many contingencies.

The habit of relying upon our own colonies and the foreign trade in meat, corn, "vegetables," fruit, and even hay, has helped to remove this question from the category of urgent and earnest topics of social interest. This is to be the more regretted because the habit to which we refer is a bad one. It is always a mistake to look outside the home circle for what can be procured within its boundaries. This is no revival of the stupid argument against Free-trade or in favour of Protection. All we mean to urge is the expediency of self-reliance. That organisation will always work best which most nearly approaches the condition of being self-contained. When a community resolutely and by a system of which it is especially proud—as Englishmen, and particularly Londoners, are proud of their drainage,—sets itself, consciously or unconsciously, to work out the problem how most rapidly to exhaust the soil of the home country by extracting and casting its elements into the sea, it is time to ask whether considerations of common prudence are wholly disregarded or the conditions of productiveness and energy overturned. That no soil is inexhaustible may be so easily learnt from observation that it can scarcely be necessary to insist on the fact. There is a limit beyond which the process of organic life upon materials extracted by the chemistry of vegetation from any given area of land, cannot be carried. That limit may be so remote that it seems visionary to speak or even think of reaching it; nevertheless, if we are moving in a wrong direction, every step in advance must expose us to new evils and inconveniences. That which affects us to-day and should serve to open the eyes of the country to the radical error of its policy, is the impoverishment of not a few districts and multitudes of the population, because material, which ought to be employed for the replenishing of the soil, is wasted in polluting the rivers. Every ton of this commodity cast into the stream and carried down to the sea, after scattering unwholesome dirt and disease in its course, is worth money, which farmers and graziers would be willing to give, and for which they cannot procure an equal quantity of fertilising manure elsewhere. This is the sum of the economic argument, and we think it is convincing and conclusive.

ONE of the most important results of that experimental physiology which it appears is now to become part of the function of the State to control, if not to hamper, has been the discovery of the vaso-motor system of nerves. This discovery, and the famous experiments that led to it, are now as well known as any of the most elementary facts in physiology, and its results in the elucidation of many a pathological problem cannot even yet be said to have reached their final completion. Nor even, as regards the physiological question itself, has research exhausted this field; many questions regarding the operation of the vascular nerves, and the precise locality of their medullary centre, are still open for investigation. There has, however, of late years been introduced an important modification, or rather extension, of the primary views of the operation of this system of nerves.

The doctrine of inhibition and inhibitory nerves is dying. The most cursory glance over the modern tendencies of physiological research is sufficient to show this. Interesting as an hypothesis, and for the most part sufficient to explain the phenomena of vascular dilatation under irritants, or on excitation of sensory spinal nerves, inhibition has failed to

explain all the facts which modern science has brought to light. It remains to be seen whether the alternative hypothesis has a surer basis, as it is of wider application. Indeed, it is hardly fair to style it hypothetical, for it is adduced as fact, and much experimental proof has been detailed in support of it.

This substitute for the doctrine of inhibition may be summed up in the phrase "the duality of the vaso-motor system." It considers that all the vascular nerves may be resolved into two mutually antagonistic sets—the constrictor nerves and the dilator nerves,—the normal tonicity of an artery being due to the balance kept between these two vaso-motorial agents. If that balance be destroyed, the part supplied by the vessel becomes either hyperæmic or anæmic, according as the dilating or contracting power has the upper hand. Thus, whereas on the theory of inhibition vascular dilatation was a passive process—a suspension of the usually operating vaso-motorial influence or state of contraction of the vessel, on the present view there is held to be as much action about the dilatation of an artery as there is about the narrowing of its calibre. The grounds upon which the fact of "active dilatation" of arteries is based are numerous. It has been shown that the dilator nerves take their origin from the cerebro-spinal axis. Some of their fibres accompany the chorda tympani, irritation of which causes an active determination of blood to the submaxillary gland—a phenomenon hitherto explained on the well-known inhibition view. The opacity of the cornea and inflammation of the conjunctiva that follow section of the fifth cranial nerve on the central side of the Gasserian ganglion, without the peripheral nerve-fibres leading to the inflamed part degenerating, are explained by the assumption that the fifth pair contains dilator nerves, which in the normal state of things counterbalance the action of the constrictor nerves. The ocular disturbances are thus attributed to the uncontrolled action of the latter kind of fibres, and, in support of this, it is said that there is notable narrowing of the vessels of the face on the side of the lesion. The most convincing fact of all in support of the presence of a set of vaso-motor nerves which actively dilate bloodvessels is contained in the experiments of SCHIFF. He has found that all erectile organs are supplied by nerves of which the stimulation is followed by an increased flow of arterial blood into the erectile tissue. The existence of these *nervi erigentes* is now pretty generally accepted, but it has hitherto been rather regarded as an isolated fact, and one peculiar to the special organs in question.

The eminent physiologist CLAUDE BERNARD has fully adopted the dual view of the nature of the vaso-motor system, and has, in his recently published work on Animal Heat, very clearly generalised upon the subject. He admits that the precise *modus operandi* of active vascular dilatation is as yet unexplained, but, fully adhering to the belief in the existence of vaso-dilator nerves, he dignifies them with the name of "calorific," as distinguished from the vaso-constrictor or "frigorific" nerves. When the action of the former predominates, the blood-flow to the part is increased, and with it necessarily occur increased oxidation and disintegration of tissue. There may be here found some explanation of abnormal temperatures following certain spinal injuries, when the vaso-dilator "centre" can be established. M. BERNARD would assign the phenomena of fever to the preponderating action of vaso-dilator nerves, and he points out that as the febrile process *per se* is a source of danger to life, so the aim of therapeutics should be to combat the source of this and control the undue action of calorific nerves. Such an object is attained by the external application of cold, which is one of the most certain and powerful means of subduing fever.

There is, however, one objection—an *à priori* one it is true, but still valid—to the doctrine of vaso-dilator nerves. It is conceivable enough that arteries, in a state of tonus, are kept semi-contracted by special vaso-motor nerves, and that, on the withdrawal of that influence, they should dilate. That, however, is only the doctrine of inhibition. The very phrase "active dilatation" implies something more; and surely when we speak of special "calorific nerves," which play an important part in the production of fever, we suppose there are agencies which can cause bloodvessels to dilate beyond their normal calibre, and in their whole extent. That it is impossible for bloodvessels to undergo this change by the action of their muscular walls it would be rash to assert, but it is almost inconceivable; and until it is fully explained the theory of active dilatation of bloodvessels, and therefore the duality of vaso-motor nerves, must be held under considerable reserve. The difficulty is, however, only based on *à priori* grounds, and probably the physiologist could afford an easy and satisfactory solution to it.

THE story told in *The Times* a few days ago by Mr. JAMES SOPPITT, district surveyor and sanitary inspector, Shaftesbury, is, we believe, by no means a solitary one. It was to the following effect:—The sanitary authority of Buckhorn Weston are desirous to amend the water-supply and sewerage of that place. They call to their aid Mr. SOPPITT, and he, after due consideration of ways, means, and people, recommends the authority to bring water from a neighbouring spring into the village to three public taps, judiciously placed for convenience of access to the people; to lay down a series of drains for liquid sewage, in other words, slop-water; and to require privies to be constructed, with dry, water-tight vaults, so arranged as to admit of the deposited excrement being readily covered with earth. This plan is approved by the authority for its inexpensiveness, and its adaptation to the requirements of the place. Buckhorn Weston, according to the last census, contains 122 houses, in which live 132 families, the total population numbering 559. Each house has its garden, the cultivation of which is doubtless largely dependent upon the contents of the privy-pit, and there these contents may no doubt be profitably and safely utilised. The sanitary authority in due course apply to the Local Government Board for authority to obtain a loan to carry out this plan, and equally in due course that Board sends an inspector to the place, to inquire on the spot as to the sufficiency of the plan for the purpose for which it was intended. But the inspector takes exception to the principle of the plan, pooh-poohing a dry-system of excrement disposal, and contemning mere slop-sewerage, and a supply of water from public taps; and he advises the adoption of a water-closet system in all its details. Mr. SOPPITT states that there is not

water to be had for such a system, but that appears to have been quite a secondary consideration with the inspector of the Local Government Board. However, the great expense of the system advocated by the Local Government Board's inspector, as compared with the plan the sanitary authority had approved, has deterred the latter from proceeding in the question. The loan they asked for has not been granted, and the question of placing Buckhorn Weston in an improved sanitary condition is postponed indefinitely.

Now what puzzles us in this story, and in similar stories which have come to our ears, is this: the law admits of a sanitary authority adopting for excrement disposal either privies, or earth-closets, or water-closets, and it throws upon that authority the responsibility of deciding which of these methods it shall adopt. In the adoption of these methods the law makes, if we mistake not, but one condition—the all-important one that the method selected shall be devised and managed so as not to create a nuisance. Equally as to sewerage and water-supply the responsibility rests with the sanitary authority of devising what will meet the needs of a locality. Plans like that suggested for Buckhorn Weston have been adopted in various parts of England, and in several instances, we believe, with the approval of the Local Government Board. At least, with regard to excrement disposal, the Board's authorised report on the subject shows that certain plans of dry-disposal are not only feasible, but in some localities desirable. But the essential point is that a sanitary authority, in deciding upon a dry-system of excrement disposal, does what it is quite competent to do by law; and it might be inferred that the duty of a Local Government inspector, in inquiring as to such a proposed system, would be limited to his ascertaining that it was so designed as not to be productive of nuisance, except under such conditions of neglect as would render any system, water or otherwise, productive of nuisance. But, according to Mr. SOPPITT'S report, the inspector in the case of Buckhorn Weston considered the question from some notion of his own as to the value and applicability of a water-closet system abstractedly considered, substituted his judgment for that of the sanitary authority on a question where the responsibility properly lay with the latter, advised the Local Government Board to refuse a loan unless under condition of a water-closet system being adopted, and so put an end for the time being to the sanitary amendment of the place.

If the Local Government Board will only grant loans for works of sewerage and water-supply conditionally upon these involving a water-closet system, and not, as the Legislature is commonly believed to have intended, to facilitate the execution of sanitary works within the full provisions of the law, this ought to be distinctly announced. We maintain that it is no function of the inspectors of the Local Government Board, general, engineering, or medical, to insist upon particular schemes for local authorities. Their function is, we hold, to see that schemes submitted to the judgment of the Board are sufficient for the purposes they are designed to meet, and will not in themselves be productive of mischiefs, and to advise sanitary authorities when called upon to advise. For an inspector to act as is reported of the inspector of Buckhorn Weston is for him to take upon himself the functions which specially belong to the sanitary authority. That the Local Government Board should have approved of such a course shows how imperfectly that Board yet understands the principle and practice of local government.

Annotations.

"Ne quid nimis."

MEDICAL EDUCATION AT CAMBRIDGE.

WE publish this week a letter from Professor Humphry commenting upon our remarks in last week's LANCET on medical education at Cambridge. Professor Humphry thinks we have under-estimated the number of young teachers who are content to remain there. Perhaps we may have done so, though the names of but few are yet familiar to us. Indeed, the only matter in reference to the state of junior teaching we have had brought to our notice was a complaint embodied in the report of the Board of Medical Studies to the University Syndicate, that a certain teacher could not devote to his subject all the time and labour which its high importance demanded, because the stipend was so small. We ask, would such an excuse be offered by any teacher or demonstrator at a London school? Certainly not, because a man in town looks for reward in future success; but at Cambridge no such inducement offers, for at the most the town does not afford scope for more than one consultant in each branch. Young men of talent and energy therefore prefer to push their way in London, or if they do prolong their stay, it is only for a few years, and they leave just as their teaching powers have been strengthened by experience, but before they have done much actual service at the University. And we repeat that without Professor Humphry, Professor Paget, and Professor Latham, the Cambridge Medical School would hardly exist. With regard to the term of residence, we admit that for Honours men three years is not too long, but we are fully convinced that for ordinary pass-men two years is quite long enough, and that more leads to idling and waste of time. Several members of the University we know think the same with respect to time of study allowed to "pass"-men in Arts degrees, and would gladly see it curtailed; and we believe the same to hold good with regard to the ordinary run of medical students. Two years we think, therefore, in the majority of cases, quite sufficient for the preliminary scientific training, especially if, instead of five months of each year being spent away from the University, the terms were made longer, or the full period of the term exacted, instead of, as at present, only two-thirds of it. Great as have been the endeavours made to attract students entering the medical profession to Cambridge, we feel sure that such a course of study will not be popular with parents till they are assured that no unnecessary time is spent at University, and that their sons will leave Cambridge qualified at once to proceed in London to their practical clinical studies.

KILLED AND WOUNDED IN THE LONDON STREETS.

ONE of the most fertile sources of the distrust of statistics, which in some minds assumes a chronic form, is the recklessness with which mere reports and statements are often issued to the public as if they were facts. The public is thus placed on the horns of a dilemma, and has either to estimate for itself the probable value of published statistical reports, or to reject, as is too often done, all statistics as open to doubt and suspicion. Official reports and bluebooks, separately published by different departments, too frequently

bewilder the public by statistics on the same subject which it is simply impossible to reconcile. Not long ago we called attention to the unreliable statement in the Metropolitan Police Report as to the deaths from suicide in London, which was copied far and wide. The police are somewhat prone to conclude that within certain limits they know everything. They ignore the fact that there is a vast discrepancy between the number of certain events which take place and the number of those events which are reported or known to themselves. A recent report remarked upon a decline in the number of suicides known to the police as if it meant a decline in the number of actual suicides, which had showed no decline at all. A similarly-to-be-regretted oversight is committed in the report of the Commissioner of the Metropolitan Police just issued with regard to the killed and wounded in the streets of London. More than one of the leader-writers in our daily contemporaries have been puzzled to comprehend how it is that the number of persons killed in the London streets fell to 87 in 1875, from an average of 123 in the six preceding years. Now the Registrar-General told us some months ago that in 1875 the number of men, women, and children, killed by injuries from horses or vehicles in the streets of London was 231, a higher number than had been recorded in any previous year. If the police figures relating to the fatal street accidents are of any value, it must be to show the proportion of such accidents which were known to the police, and in which they may be presumed to have given assistance to the sufferers, or to have estimated the blame attaching to aggressive drivers. Judged in this way, the efficiency of the police in 1875 showed a marked falling off. It is to be hoped that the 2700 cases of injury and maiming from street accidents, reported by the metropolitan police in 1875, are not understated to the same extent as the number of killed from the same cause. The metropolitan police take no cognisance of the City, but their district includes a vast suburban area not included in registration London.

FECUNDITY OF MARRIAGES IN ENGLAND.

IN his last Quarterly Return the Registrar-General called attention to the recent "unprecedentedly large" increase of population in England and Wales. This increase has been partly due to an exceptionally high birth-rate, and partly to a marked decline in emigration. The recent steady increase in the birth-rate is not without physiological interest. The Births and Deaths Registration Act of 1874, which came into operation on 1st January, 1875, for the first time made the registration of births compulsory in England. The Registrar-General is of opinion, however, that but few births had recently escaped registration, even before it was made compulsory, and that the operation of the Act has, in this respect, had but slight effect upon the birth register. The fact that the birth-rate in England in 1875 was slightly lower than in 1874, when the compulsory clause was not in operation, may be urged in support of the Registrar-General's opinion. It is quite possible, and even probable, that the registration of births has gradually become more complete in recent years, through the more general appreciation of its value and importance. There would, however, appear to have been other causes at work to account for the steady increase in the birth-rate. During the two decades, 1851–60 and 1861–70, the marriage-rate in England may be said to have been stationary, although it was slightly lower in the later than in the earlier decade. The annual birth-rate in the second decade, however, exceeded that in the first by more than 1 per 1000 of the population; and a further equivalent increase occurred during the first half of the current decade. The fecundity of marriages, measured by the number of registered legitimate births to each recorded marriage, during the ten years 1851-60, was 3·8, whereas in the succeeding decade it had increased to 4·2. The fecundity of marriages in France has been calculated in this way at 3·1, in Switzerland at 3·6, and in Austria at 4·5, children per marriage. It may be fairly assumed that the number of children born, during a decade, of parents married in the preceding decade, is balanced by the number born to the parents married during the decade, in the succeeding decade. The before-mentioned figures therefore undoubtedly show a recently increased fecundity of marriages in England. With reference to this marked increase of fecundity, the continuous increase of early marriages in England should not be lost sight of. Previously to 1847 less than 9 per cent. of persons married were under age; in that year 4 per cent. of the men, and 13 per cent. of the women, were under twenty-one years of age. Since 1847 the proportion of persons married under age has steadily increased. In 1874, the most recent year for which the figures are available, the proportion of persons married under age was 15·5 per cent.; the proportion was 8 per cent. among males, and 22·7 per cent. among females. Thus, between 1847 and 1874 the proportion of males married under age had doubled, and that of females had increased more than 70 per cent. It appears more than probable that there is some relation between the increased fecundity of marriages in England and the increased proportion of early marriages. It may be noted that the increase of early marriages has been accompanied by a decrease in the proportion of illegitimate births. During the ten years 1851–60, 6·5 per cent. of the births registered were of children born out of wedlock; in the succeeding decade the proportion fell to 6·1, and in the first four years of the current decade it did not exceed 5·3 per cent.

POISONED SLEEP.

ATTENTION is again painfully directed to the abuse of hypnotics, or sleep-producers, by an "accident" in the use of chloral, habitually taken to assuage the sorrows, bodily and mental, of overwork. The case derives exceptionally distressing interest from the circumstance that the sufferer and ultimate victim was a clergyman of the United Presbyterian Church, and that, with characteristic obtusity and fanaticism, the Presbytery mistook the combined effects of the disease and its remedy, for drunkenness, and persecuted the poor man until he was compelled to resign his living, and with it almost his last hope and concern in life. The Rev. Dr. Harvey died from an overdose of chloral taken at night. It does not appear that the quantity he took was excessive; but, operating upon a system already seriously debilitated by disease and this pernicious drug, he fell into a state of coma from which his recovery proved impossible. We have no desire to dwell on the features of this particular case; but we hope what poor reparation may be made to the memory and bereaved family of a persecuted man will be made with such promptness and liberality as the obligations of honour and duty require. Our concern is with the act of folly committed by the deceased, and for which he has been most grievously punished. It is humiliating to feel compelled to characterise the use of sleep-producers and anodynes as an act of folly, because the profession is not wholly free from the imputation of bolstering up the practice by a mistaken mode of prescribing; and by an implied, if not expressed, sanction of the lay use of such potent drugs as chloral and the compounds of which its essential principle is the active ingredient. We have not hesitated to insist, and there is no reason why we should not repeat, that in our judgment the practice of recommending patients to employ these "remedies," even occasionally, is unprofessional and unsound. It takes its rise

in a morbid wish, or perhaps we ought to say willingness, to meet the popular passion for self-physicking half way, and at the same time to save patients the trouble and expense of having a formal prescription duly dispensed at a respectable druggist's. It is gratifying to the patient to be told, "If you get a bottle of So-and-so's something or other, and take a certain number of drops on going to bed, you will find great relief." The physician unbends, and the patient feels taken into confidence, and is flattered by the counsel. It is in *irregular* advice of this kind the habit of taking drugs to produce sleep generally begins. Of course there are persons who commence to use the sleep-producer or pain-reliever after hearing its virtues extolled by someone else, but those who can afford the luxury generally contrive to get the recourse sanctioned in express terms, or tacitly, by mentioning the fact of its use to some medical adviser, who either lacks the courage, or is heedless of the moral obligation, to prohibit a practice he cannot approve. We think the time has come to appeal strongly to the profession, and especially to those who are engaged in what is sometimes called "fashionable practice," to put a stop to this growing evil. The lay use of chloral and the allied preparations and compounds needs to be specifically exposed. The penalty of dram-drinking, opium-eating, or laudanum-taking, is patent to the sufferer and his friends, so that he offends with his eyes open. The man or woman who procures sleep by doses of chloral commits this supreme act of folly for a considerable period with apparent impunity. He is not even warned by the need of an increasing quantity. The same, or perhaps a smaller, number of drops will suffice after the drug has been long in use. Nevertheless the strength is undermined. Each hour of "rest" and "ease" is purchased at the cost of an equivalent loss of force—that force which holds the organism intact, gives energy to each nervous centre, and imparts the tone of vitality to body and mind. It is with such coin the overworked and sleepless sufferer, misdirected to the use of chloral, buys his repose. We repeat, it is the solemn duty of the profession to warn the public of the peril that besets them, and the price they must pay for sleep so poisoned and ease so procured. The *Daily Telegraph* has done good service in calling attention to this evil in a just and forcible leader.

THE LATE OUTBREAK OF FEVER AT CROYDON AND THE WATER-SUPPLY.

WRITING last year in reference to the outbreak of enteric fever at Croydon, we stated that the spread of the disease would on examination be found to be caused by the defective condition of the water-mains, their relations to the sewers, and the intermittent nature of the supply. We pointed out the fact that the overflow-pipe of one of the reservoirs communicated directly with the sewers, and was on one occasion at least untrapped; yet, though such an arrangement was one of considerable danger, we did not think it sufficient in itself to have produced the epidemic in question. We thought the chief blame would be found, on further inquiry, to lie in a defective condition of the mains, and the intermittent nature of the supply. This inference was drawn from the following fact:—"The water-supply is still occasionally intermittent at low level; in the high level the supply is more constant, but it happened that there was an intermission of some hours on the 16th of September, about fourteen days before the large increase in the fever cases occurred." At that time the sewers contained specifically contaminated excreta from the previous cases which had been occurring in the town during the summer months, and it is not unreasonable to suppose that strong suction action was going on within the mains on the day of intermission, and may have drawn the specifically contaminated contents of the neighbouring sewers into them, to be distributed wholesale the next time the mains were charged.

These remarks were ill received at the time by the authorities, and also by some of the inhabitants, who thought we were injuring the town by the propagation of statements that had no "foundation in fact." We are therefore pleased to find that the opinion so strongly expressed by ourselves has been borne out by the fuller investigations of Dr. Buchanan, the Inspector for the Local Government Board. From that gentleman's report, which we reviewed at length last week, we learn that the history of the outbreak was chiefly that of contamination in the local service, not of unwholesome quality in the total water-supply of the town. Dr. Buchanan says:—"During my visit, for experiment's sake, a common house-tap was connected with a pan containing a solution of burnt sugar, enough to colour some thousand gallons. On the ordinary night intermission of supply the whole of this was straightway sucked into the pipe, and, except from one neighbour, was no more heard of. It is on record that a few years ago bloody water came from the main-tap of a house next to a slaughter-house." The evidence that very awkward relations exist between the sewers and drains on the one hand, and the water-supply on the other, is overwhelming, and that intermission in the supply increases the danger; though Dr. Buchanan found that, even when full or partially full of water, foreign matters will pass if any sort of aperture exist. Now the sanitary authorities of Croydon have had pointed out to them the shortcomings of their sewers and water-mains by the Government inspector, we hope that they will take steps either to remove the water-pipes from dangerous proximity to the sewers, or at least see that these are constructed of impervious materials.

THE MIDDLESEX MAGISTRATES AND THE COUNTY CORONERS.

WE are glad to find that Captain Morley is in his wonted health and spirits. At a general meeting of the magistrates of Middlesex, held lately, he, as usual, demurred to what he considered the excessively high charges for coroners' inquests. The accounts, as read from the report, were as follow:—Mr. Humphreys, 171 inquests, £233 18*s*.; Dr. Hardwicke, 160 inquests, £314 11*s*. 8*d*.; Dr. Diplock, 81 inquests, £145 7*s*. 6*d*.; Mr. Bedford, 27 inquests, £53 3*s* 2*d*. The gallant officer was shocked at the monstrous fact that although Dr. Hardwicke had held eleven inquests less than Mr. Humphreys, his expenses were £80 13*s*. more, and he protested energetically against "a return to the old principle of high charges." We have so often endeavoured to explain why it is impossible at times to keep these expenses down, that we fear it would be useless to do so again. Mr. Bedford, a lay coroner, although his iniquity was not pointed out, appears to have sinned on this occasion, as a reference to his returns will show that the relative difference between inquests and charges is about the same as those of Dr. Hardwicke. At the same meeting of magistrates, a letter was read from the Home Secretary, requesting the Court to consider further the petitions of Mr. Payne and Dr. Diplock on the subject of their salaries as coroners for the county. After dealing with the question at issue in that practical and ready manner which distinguishes him, Mr. Cross proceeds to say that he "considers that if an increased number of inquests have been fairly held, and an increased expense for mileage incurred, such elements should not be entirely left out of the calculation in arriving at the basis of what is a fair salary to be paid these coroners for the ensuing five years, and he hopes the magistrates will further consider their cases." Captain Morley moved that a reply be

sent, stating that the justices have now no means of discovering in what cases inquests have been fairly held, but have still every reason to believe that "the larger number are unnecessary and improper," and they therefore adhere to their resolution that no increase should be made in the salaries of the coroners of the county. We are sorry that this motion was seconded by Sir John Heron Maxwell, and that an amendment to the effect that the subject should be again considered was not even seconded. The Minister in whose hands the matter now rests will, however, we feel sure, arrive at a just conclusion.

MEDICAL CONGRESS AT TURIN.

IN Italy political unity has been followed by professional unity, and the "Italian Medical Association," founded at Piedmont in 1850, joins the "National Association of Medical Ethics," founded in 1874 at Forli, to hold a medical congress at Turin on the 18th September next. These two associations represent the whole field of professional life covered by the healing art, the former taking up every question that interests medical science, the latter every question that interests the profession in society. In the congress sections will be formed for every department into which medical science as a whole is divided,—medicine proper, surgery, hygiene, psychiatry, children's diseases, obstetrics, ophthalmic surgery, syphilography, will each have its special subject-matter represented and discussed. Every facility will be held out to the participation of foreign members of the most cosmopolitan of professions, and our British compatriots especially are promised a hearty reception in the hospitable sub-Alpine capital. The proceedings will last a week, till, that is to say, the 23rd inclusive, and in-door discussion will be pleasantly relieved by peripatetic visits to hospital and asylum during the congress, and trips to the noble environs after it, to say nothing of a descent on the lakes, or a raid on one or other of the fine old university towns within easy distance. A medical exposition, Italian in its origin, will be held during the week, and the visitor will have ample opportunity of testing whether, or to what extent, Italy's right hand has lost the cunning which placed her first among the manufacturers of surgical instruments and medical appliances at the Renaissance. The exposition will also include the principal works and periodicals in medicine of the last biennium; new pharmaceutical preparations and medicaments of recent discovery; anatomical and histological preparations, healthy and morbid; designs, photographs, mouldings in gypsum, wax, and papier-maché, illustrative of rare deformities and maladies; new aliments for convalescents; finally, plans and appliances in public and private hygiene. Professor Pacchiotti, as President, will deliver the opening address—an attraction which should of itself ensure the attendance of all who, whether professional or lay, acknowledge the charm of brilliant scientific generalisation conveyed in language of academic purity and finish.

LONDON HOUSE-DRAINAGE.

RECENT letters to *The Times* from the occupiers of highly-rented houses in the west of London on defects of drainage in their houses prove how very imperfectly an important section of the well-to-do and educated classes understand local sanitary administration. In each instance the writer entertains a vague notion that in some way the sanitary authority of his locality ought to be responsible, or is responsible, for imperfections of drainage discovered within the precincts of his own premises. It is well that it should be more clearly understood that the ordinary functions of the sanitary authority cease, in this respect, except as to new houses, when it has provided a proper outlet for drainage, and that all the rest is a matter solely for the tenant or owner. Hence it is too little known that the existence of a complete system of well-designed public sewers, such as is now commonly found over a great part of the metropolis, and of the grand system of main-sewerage, does not imply, as too many think, that all houses within the well-sewered area must also be well drained. The fact is that many of the older houses in the metropolis, built before the improved systems of sewerage were constructed and came into operation, still retain their old arrangements for drainage. As a rule, the old house-drains, commonly of brick, and often rectangular, have been simply diverted from the original cesspools and connected with the new common sewers, the cesspools having been simply covered over, and in the lapse of time forgotten. Persons entering newly upon the occupancy of the older houses in London should be always careful to have research made into the house-drainage, and they may frequently obtain light as to the sort of connexions with the common sewer from the surveyor of the local authority. Agents must not be too readily blamed for ignorance of drainage defects discovered after occupancy. It is rare that precise knowledge exists of the state of the drains in old houses. Seven cesspools full of semi-fluid nastiness were lately discovered beneath the flooring of the kitchens in an excellent old West-end mansion, where a previous occupier had believed that he had fully rectified all errors of drainage, and newly drained the house in the most approved fashion. It is well to assume of every old house in the metropolis, and of many new, that the drainage is defective until the contrary is clearly shown by authenticated plans or direct exploration.

VITAL STATISTICS OF SCOTLAND.

FROM the eighteenth annual report of the Registrar-General we learn that the marriage-rate during 1872 was the highest hitherto recorded in Scotland; that the birth-rate of the country has been well maintained; and that the death-rate for the same year has been somewhat higher than usual, a circumstance obviously due to the continued prevalence of an epidemic of small-pox in some of the principal town districts. The Vaccination Act works well in Scotland; those entrusted with its administration do not find their efforts for the public good thwarted by any popular prejudice; on the contrary, the people seem to have—to their credit be it said—an intelligent appreciation of the benefits which the practice of vaccination secures them. It is suggested that if four months were substituted for six months after birth as the statutory limit beyond which a child should not go unvaccinated, the change would be attended with benefit. The report of Dr. William Robertson, F.R.S.E., to the Registrar-General affords an excellent summary of the main results for 1872, and contains some interesting remarks in the way of comments on the detrimental effect of modern civilisation on infant life, connected with the tendency of masses of the population to congregate towards great centres, and with the habits or occupations of the dwellers in large cities as compared with the poor of the Scottish highlands and islands. The extraordinary prevalence of small-pox in 1872, in accordance with the general laws that govern epidemics, had for a time disarmed fevers of their virulence. The diminution in the number of deaths from typhus, which was until late years incomparably a more frequent cause of death in Scotland than typhoid fever, was especially remarkable; as regards enteric fever, however, the deaths were quite as numerous as usual. The frequency of deaths from typhus has been to that of typhoid fever in 1872 as 24 to 37 in all Scotland. It was in the small towns,

and in the Midland rural district, as well as in Leith and in other three of the principal towns, that the mortality from enteric fever greatly preponderated. If, as is generally admitted, it is the faulty arrangement of our dwellings, and more especially the contamination of drinking water, that chiefly favour the development and spread of typhoid fever, it is, remarks Dr. Robertson, hardly creditable to modern civilisation that so insidious a pestilence should be, year after year, acquiring fresh force from the absence or imperfection of sanitary appliances.

THE INFLUENCE OF PHTHISIS UPON CHILD-BEARING.

AMONGST the numerous theses sent in this year for the Doctorate of Medicine of the Faculty of Paris is one by M. F. Ortega upon the above subject. The essay is fairly summarised in the *Revue des Sciences Médicales*, and the following are amongst the chief conclusions arrived at by the author, as a result of investigations in ninety-five cases. Phthisis has in the first place a marked effect upon conception; thus the author only met with thirteen out of his ninety-five females who, after the commencement of pulmonary symptoms, bore more than one child, and a third pregnancy was very rare in such circumstances, although many of the women were multiparæ. In all these cases the phthisis was in the first and second stage, in one only it was advanced. In this case there was an abortion at the fourth month, and death shortly after. As to pregnancy, more than one-third of the cases aborted or were premature deliveries, and reckoning only those who had a tubercular history, in but one-half did the pregnancy last till full term. Phthisical mothers are moreover unable to suckle their offspring, for setting aside ten cases in which phthisis developed during and probably under the influence of lactation, only eleven out of sixty-four infants were suckled by their mothers, and these infants, healthy at first, soon showed signs of insufficient nutrition, and died with enteritic symptoms. M. Ortega's cases show also that pregnancy hastens the evolution of phthisis to a marked extent, delivery being rapidly followed by the death of the mother, although the first days of the puerperal state are generally marked by a considerable abatement in the pulmonary symptoms. Both pregnancy and lactation he regards as exciting causes of phthisis in predisposed subjects.

A CASE FOR PULLMAN'S CARS.

THE time is fast approaching when a number of English people will take their swallow-like journey to the South of France. The number of those who are at once delicate enough and wealthy enough to escape the English winter in this way is very large, and is likely to become larger. It would probably be larger still if the journey, not necessarily a very long one, could be made less irksome. French travelling is slow, and French carriages are apt to be filled up in a way trying to people in full health. Anything like recumbency, which is often possible after a fashion in English railway carriages, is here out of the question. There is an entire absence of Pullman's cars. Neither are there saloons running between Calais or Boulogne and Paris, or between Paris and Marseilles. There are, indeed, we believe, *coupé-lits* by the night mail from Calais to Paris, and there are *coupé-lits* from Paris to Marseilles; but it is evident that for such a service anything short of Pullman's cars is inadequate, and we venture to hope that our French neighbours will lose no time in supplying this great lack of service. The only practicable way for invalids at present to do the tedious journey between Paris and Marseilles is by breaking it up into two or three separate journeys. Saloon carriages and Pullman's cars, by enabling them to recline or to have a good sleep, would enable the journey to be done in a shorter time and with infinitely less fatigue. Such adaptation of the service, we need not add, would increase the number of passengers, and would be certainly much appreciated. The injury of long railway journeys to invalids might be reduced to a very inconsiderable quantity if our suggestion were accepted.

TYPHOID FEVER IN PARIS.

THE health of Paris, judged by its mortality returns, has not recently been satisfactory. The annual rate of mortality during the fourteen days ending August 24th was equal to 33·8 per 1000, whereas in London during the same period it did not exceed 21·6. The weekly returns show, moreover, that this excess was in great measure due to the fatality of zymotic diseases. During the two weeks, 21 deaths were referred to small-pox, 63 to scarlet fever, 169 to typhoid fever, and 215 to infantile choleraic diarrhœa. Each of these diseases was considerably more fatal during the fortnight in Paris than in London. The most noticeable feature, however, in the returns is the fatality of typhoid fever. The weekly number of deaths from typhoid fever in Paris steadily increased, after the beginning of July, from 6 to 87 in the week ending August 17th, and was 82 in the following week. The annual death-rate from this disease in the city was equal to 2·4 per 1000 of the population during these two weeks; whereas in London, during the same fortnight, the death-rate from fever, including typhus, typhoid, and simple continued fever, did not exceed 0·29 per 1000. Typhoid fever was thus nearly ten times as fatal in Paris during the fortnight as it was in London.

PROMISCUOUS DRINKING.

IT is really sad to see the systematic efforts that are being made now and again to feed and foster the vicious habit of promiscuous tippling in and about London. During the past year, a single company has acquired all the river steamboat traffic on the Thames between Hampton and Sheerness. New saloon-boats and other special improvements were promised to the public by this company. Most of these promises remain, up to the present time, unfulfilled. But the directors, diligently alive to the importance of affording opportunities of refreshment to their customers, have, during the past week, been establishing on the small boats that run between London-bridge and Chelsea, small drinking-bars, that are, as on shore, presided over by comely syrens, where beer, brandy, and other alcoholic delicacies, can be obtained *ad lib.* These minute gin-shops give the steamboats a "pothousy" appearance, and we take it to be an utterly gratuitous assumption that persons who travel either for business or pleasure on the Thames for some few minutes at a time need refreshment of this sort. Prandial and other arrangements are of course necessary on the Gravesend, Southend, and Sheerness boats. But surely such are not needed for the short journeys above-bridge, and we think had much better be absent.

POTABLE WATER AT SEA.

THE want of water at sea in case of shipwreck is in itself so terrible a catastrophe, and is always fraught with such miserable results, that we gladly welcome any proposed plan calculated, when a casualty occurs afloat, to supply this want. We have recently inspected a small distilling apparatus that, according to the design of the inventor, is proposed to be fitted in the bows of a boat, enclosed simply by a strong wooden hood. As to the machinery

itself, there is nothing specially novel. It is a distilling apparatus on a small scale, and is said to produce drinkable water at the rate of about a pint and a half per hour. The machine has, however, been tested only with a strong solution of Tidman's sea salt, which, we opine, is not a crucial experiment. Genuine sea-water must be procured and dealt with before any definite verdict can be pronounced as to the quality of the distillate. The water is heated by paraffin, a store of which is kept close to the apparatus; and, as arranged, the entire affair should be ready for use at a minute's notice. The boiler, and, indeed, nearly all other parts, are made of copper; but, as it appears to us, the present arrangements do not sufficiently protect the apparatus against accidents from weather and water, as the sudden ingress of three or four inches of water in the boat would speedily extinguish the lamp, unless the compartment at the bows was made thoroughly watertight below. These, however, are working details, that ought to be overcome without any difficulty. The construction of the instrument appears fairly simple, and should not with care be easily put out of gear. If the object claimed for it is honestly fulfilled, the "Aqua Vitæ," as it is called, should be fitted to the lifeboat of every large ocean-going ship.

THE HOP PICKERS.

ON Sunday last a very large number of pickers from the East of London left for Kent by special trains on the South-Eastern and Chatham railways. Our readers will probably recollect that the 314th section of the Public Health Act, 1875, gives power to local authorities to make bye-laws for securing the decent lodgment and accommodation of these persons. Some six or eight weeks ago a circular on the subject was issued by the Local Government Board to the sanitary authorities of the various hop-picking districts, and at the beginning of the current year a society was formed in Kent, under the presidency of Lord Darnley, for the employment and improved lodging of hop-pickers. As so much in the right direction appears to have been done, it is proper that an inspector should be appointed by the Local Government Board to report specially on the success of the efforts that have been, or are being, made to ameliorate the sanitary condition of these people during their short term of hard labour.

THE HEALTH OF ST. PANCRAS.

THE annual report of the health of St. Pancras has been issued by Dr. Stevenson, medical officer of health. The rate of mortality during the year 1875 was slightly lower than that of the whole of the metropolis. There were registered 8010 births and 5416 deaths, but deducting the deaths of non-parishioners in public institutions, and making due allowance for the deaths of parishioners in hospitals, the corrected number of deaths was 5401. Infantile mortality was somewhat in excess. It is satisfactory to find that 89 per cent. of the children born in the parish were either successfully vaccinated or died before the operation could be performed. This doubtless bears on the trifling mortality from small-pox, three fatal cases only being recorded from that disease. Measles was very prevalent in the year, being largely disseminated through the schools, though the number of fatal cases (82) is a small percentage of the total number of cases reported. Scarlatina was very prevalent and virulent, and caused 230 deaths. Whooping-cough was also fatal, and was credited with 232 deaths, while 55 succumbed to diphtheria; and Dr. Stevenson is happy in stating that the parish was never in his experience so free from typhus and enteric fevers. The mortality from these diseases was only half that of the average of the preceding ten years. It would appear that a great improvement has taken place in slaughter-houses. It has rarely been necessary to enforce the bye-laws relating to them by legal proceedings, and slaughtermen themselves have been taught to perceive the advantage of complying with sanitary requirements. With the extension of the staff of sanitary inspectors it is hoped to secure a more thorough supervision of the parish than that which has obtained hitherto.

ARSENICAL WALL-PAPERS.

WE draw attention to a letter in our columns this week, from which we learn that the use of arsenic in the preparation of wall-papers of green colour is not yet abandoned by manufacturers. In this case the presence of arsenic has been proved by two independent analyses. The quantity must have been large—dangerously large; for the effects of the poison were manifested after one night's occupation of the newly-papered room. The unglazed condition of the paper aided this rapid action, as the arsenic was thus more easily volatilised. Our correspondent has drawn the attention of the Home Secretary to the matter, and we hope Mr. Cross will see his way to putting a stop to this wholesale distribution of poison at an early date. In the meantime it behoves the public to make particular inquiries before purchasing any kind of green paper as to the names of the manufacturers, so as to receive from them a guarantee that no pigment containing arsenic has been employed in their preparation.

STIMULANTS IN WORKHOUSES.

VARIOUS boards of guardians, both in the metropolis and the provinces, continue to be exercised by the question of the consumption of stimulants by the sick poor. At the last meeting of the St. Pancras guardians the workhouse visiting committee reported that there had been a great increase in the use of stimulants by inmates during the past twelve months, and they had instructed the clerk to inform the medical officer that the attention of the guardians had been again directed to the subject, and that they desired he should carefully notice the nature of the cases on the medical relief lists with a view of reducing as much as possible the quantities of alcoholic stimulants consumed by the inmates. The Hackney guardians, at a late meeting, resolved, on the motion of Dr. Millar, that instructions be given to the district medical officers that in all cases where they think it right to prescribe wine and spirits for the use of the sick they shall state on the prescription the quantity to be given by the dispenser, computed by ounces, and further that the dispenser shall be supplied by the contractor with wine and spirits in sufficient quantities, and keep an exact record of their distribution. Dr. Millar disclaimed having any intention to interfere with the powers of the medical officers, but explained that under the existing system the quantity of wine or spirits necessary in each case was not specified, and the consequence was that a pint or a half-pint was often given when a much smaller quantity would be sufficient; and possibly in some instances it was used in a manner that was not contemplated at the time the order was given. Poor-law medical officers throughout the country will have to exercise the greatest discretion and tact in steering clear of two evils when called upon for opinions on the advisability or not of prescribing alcohol for their pauper patients.

VACCINATION IN KEIGHLEY.

THE vaccination officers of the Keighley Union recently made their annual report to the guardians, which shows the unfortunate results of the anti-vaccination agitation in that locality. During the year 1875, 1019 births are reported to have occurred within the union, and at the end

of the year 549 of the children, or 53·8 per cent, were unvaccinated or otherwise unaccounted for. In Keighley itself the proportion unvaccinated was so high as 60·4 per cent. These figures contrast in a striking manner with those recently published for Leeds, where the percentage of children unvaccinated or unaccounted for during 1875 was only 1·9. The material for another fatal epidemic of small-pox in Keighley is being accumulated at an alarmingly rapid rate.

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE President and Fellows of the Faculty of Physicians and Surgeons of Glasgow have issued cards of invitation to dinner, on Friday, Sept. 8th, to the savans who propose to attend the British Association for the Advancement of Science, including a considerable number of medical men. This is the forty-sixth meeting of the Association, and we doubt not will be in every respect a great success, scientifically, socially, and peripatetically. Our profession in the commercial metropolis of Scotland holds a deservedly high position, and will take its due share of labour and generous hospitality in connexion with the visit of the Association to the North.

ACTION OF LACTIC ACID ON THE ECONOMY.

IN the last part of the *Zeitschrift für Biologie*, Dr. Ernst Heiss, of Munich, discusses the question whether the inorganic constituents can be withdrawn from the bones of an animal by the introduction of lactic acid into the intestinal canal, and arrives at the conclusion that the acid has no such power, though the researches of M. Marchand show that the bones of rachitic children contain a greatly increased proportion of phosphate of lime, and a large quantity of lactic acid.

AT a late meeting of the Manchester Board of Guardians it was resolved that a gratuity of twenty guineas be awarded to Dr. Williams, medical officer of the Swinton Schools, for extra services in connexion with an outbreak of small-pox which recently occurred there, but which it was believed, through his energy and skill in revaccinating all the children above seven years of age, was quickly stamped out. Dr. Williams vaccinated in all 586 persons, whose ages varied from seven to fifteen years, in the majority of cases with marked success. The conclusions he arrives at from his experience in this outbreak, and which he has embodied in a report to the guardians, are that revaccination at once arrested the spread of small-pox, for although up to the time of revaccinating the boys two or three cases a day were being sent to the infirmary, not a single case occurred after vaccination had time to take effect; and that after seven years the effect of primary vaccination is, in the majority of cases, more or less "worn out," and that revaccination is therefore absolutely necessary. The guardians have ordered Dr. Williams's report to be printed, and copies to be sent to all boards of guardians (we trust the Keighley Board will not be forgotten) and also to the Local Government Board.

THE members of the West Riding Medical Charitable Society have presented Dr. Chadwick, F.R.C.P., D.C.L., and J.P., of Leeds, with a service of plate, in recognition of his valuable and long-continued labours as secretary of the Society. The presentation was made at a public dinner at Sheffield, attended by a large number of physicians and surgeons, Dr. J. C. Hall occupying the chair. Many out of Yorkshire will rejoice at this mark of esteem to one of the best-known physicians in the provinces.

THE scheme of the War Department for softening and purifying the water supplied from the artesian wells at Shooter's-hill, for the use of the invalids and troops at Woolwich, has been completely successful. The effect of the softening process is to reduce the hardness of the water from 21 to 6 degrees, a result which would also be obtained by boiling the water for two hours. The admixture of the lime-water for softening purposes has also the advantage of chemical purification, surpassing both in simplicity and effectiveness any system of mechanical filtration. This Government experiment affords another example, if any were needed, of the ease with which the softening process can be applied to large quantities of water. The London water-supply is, however, still delivered unsoftened and unpurified—and, indeed, of a degree of hardness which renders it practically unfit for washing, cooking, and many other domestic purposes.

THE last quarterly return of the Registrar-General showed that the borough of St. Helens, in Lancashire, suffered from an abnormally high death-rate from zymotic diseases during the second quarter of this year, due principally to the epidemic prevalence of measles, although the death-rate from fever was also sufficiently high to indicate unsatisfactory sanitary condition. At a recent meeting of the Health Committee of the St. Helens Town Council it was reported that twenty-one houses in Eldon-street, in this town, drained on the surface of the ground, rendering the owners liable to a penalty of £50 for each house. It is satisfactory to know that the clerk was instructed to take proceedings against the owners, but it would be still more satisfactory to hear that measures had been taken to prevent the future possibility of so dangerous a breach of the bye-laws under which the prosecution was ordered.

OUR attention is again drawn to the subject of charity voting reform by remarks made at the half-yearly meeting held on Monday last of the supporters of the Merchant Seamen's Orphan Asylum. Mr. N. Griffiths, the chairman, asserted that trafficking in the votes of the Society was carried on to a considerable extent, and after commenting on the immorality of the practice, declared that the election of a child secured by such means would be considered null and void. A resolution of this kind will, however, never put an end to the abuse, for the entire abolition of the voting system is the only way to ensure the diversion into proper channels of the enormous sums of money given by the public to charitable institutions.

OF the twenty English large towns furnishing weekly death returns, the lowest annual rate of mortality last week was at Bristol—18 per 1000, and the highest at Leicester—46 per 1000. London had a death-rate of 20 per 1000. There were registered in the metropolis 1370 deaths, including 10 from small-pox, 10 from measles, 57 from scarlet fever, 8 from diphtheria, 21 from whooping-cough, 15 from different forms of fever, and 198 from diarrhœa. There were 18 deaths by drowning, and 3 referred to sunstroke. Some of the foreign cities, according to the latest returns, have high death-rates: thus Breslau, Buda-Pesth, and Alexandria have rates respectively of 46, 52, and 55.

ON Saturday, 26th August, the two Metropolitan Asylum District Small-pox Hospitals at Stockwell and Homerton contained 74 patients, corresponding with the number at the end of the preceding week; 55 were vaccinated and 19 unvaccinated cases. The prevalence of small-pox in the metropolis is still almost entirely confined to South London. The fatality of the epidemic in Liverpool, Manchester, and Salford is now declining.

THE sanitary condition of Shrewsbury cannot be said to be quite satisfactory. We observe that the death-rate in the last quarter was 27 per 1000 annually, a rate exceeding by three that in 1853, when a Government inspector visited the town to investigate into its hygienic affairs, the result of which inspection was the Shrewsbury Improvement Act. The two causes of the increased mortality appear to be bad water and defective drainage. Speaking of the latter, a local paper writes, "We have no hesitation in saying that it is probably at least as injurious to the health and lives of the inhabitants as even the bad Severn water which some of us are compelled to swallow, and use for household and washing purposes." Our contemporary then deals with the question in a manner at once temperate and earnest.

CHOLERA continues to be reported from various parts of India. On the Cashmere frontier, which has been infected for some time, and where a quarantine has been established, a fresh outbreak of the disease in an aggravated form has occurred. At Murree seventy-one persons in all have died, seventeen being Europeans. The troops at this station have been moved into camp, and the inhabitants are leaving. There have been some cases in Rawul Pindee. Medical officers, civil and military, are giving an extensive trial to salicylic acid in cholera, and some apparently very good results have been obtained.

IT is with extreme sorrow that we announce the death of Mr. Victor de Méric, F.R.C.S., of Brook-street, at the age of sixty-five. Mr. de Méric was surgeon to the Royal Free, the French, and the German Hospitals, and was late President of the Medical Society of London. He was for many years a valuable and highly-esteemed member of the staff of this journal. We shall, at the earliest opportunity, publish an obituary notice of the deceased gentleman.

SIGNOR BONGHI, the most enlightened and energetic Minister of Public Instruction who has yet held that portfolio in the Italian kingdom, has just completed an elaborate work on the Faculties of Medicine in Europe in general, and Italy in particular. From the scholarly accomplishments and power of investigation possessed by Signor Bonghi, we may expect a lucid and elegant treatise on a subject of historical as well as contemporary interest.

Correspondence.

"Audi alteram partem."

MEDICAL EDUCATION AT CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—I fully agree with the general tenour of your leading remarks in to-day's LANCET on medical education at Cambridge, believing that the great function of the university in relation to medical education is to give good scientific teaching in the subjects of the earlier period of medical study (chemistry, anatomy, physiology, &c.). You will find, however, from the programme of next year's lectures, which I enclose, that you somewhat underestimate our teaching staff in these subjects, and that we are not quite so devoid of the backbone of young teachers as you seem to think.

You observe, and you have before made the same remark, that the University would do well to shorten the time of residence required for a degree from three years to two years. It is now the major part (about seven months) of each of three years. Such an alteration might be a convenience to some of those students who have already made considerable advance in the subjects above mentioned before they come here, though many even of these do not desire it. But would it really be an advantage to the ordinary students who commence their professional instruction here, and who constitute the greater number of those who come, and who are likely to come? Is three years at all too long for such a training as you and we desire in chemistry, anatomy, and physiology, to which Cambridge, as well as some other licensing bodies, adds physics, botany, and comparative anatomy, as well as materia medica and pharmacy? Could a good knowledge of these subjects possibly be acquired in two years? Would it not be a mistake to delude persons into the idea of thinking they should attempt it? What the profession should be anxious to obtain, and Cambridge should be anxious to give (and this point seems rather overlooked by many persons just now), is the university education rather than the university degree; and the latter should be esteemed as an evidence of the former. Can this education be satisfactorily given in a less period than three years? If not, what great advantage will be gained by shortening the time of residence?

I am, Sir, yours, &c.,

August 26th, 1876. G. M. HUMPHRY.

THE CAUSE AND TREATMENT OF RICKETS.

To the Editor of THE LANCET.

SIR,—An annotation in the last number of your journal refers to some investigations made by Dr. Norman Moore on the above subject. During the last two years, at the National Orthopædic and Victoria (children's) Hospitals 279 cases of rickets have come under my observation; in all of them I have made careful inquiry with the view of ascertaining the cause of this disease. My experience confirms the conclusion arrived at by Dr. Moore, and I am convinced that the main, if not the sole, cause of rickets is improper feeding. The most frequent error is long-continued suckling, many children not being weaned until from fourteen to eighteen months of age; the next most common mistake is giving farinaceous food at an early age; another is the administration to children "brought up by hand" of milk too freely diluted with water. Any two of these errors combined, of course, increase the mischief. The following cases, taken from my notes, of rachitis existing in two brothers will illustrate the results of bad feeding:—

CASE 1.—F. L——, aged three years eight months; brought to Victoria Hospital on August 31st, 1874, suffering from lateral curvatures of tibiæ; this was first noticed by the mother ten months since; previous health good. Brought up by hand on milk-and-water until nine months of age.

CASE 2.—E. L——, aged two years and three months; seen on same date. Has large head, contracted thorax, protuberant belly, sharp curve of bones of forearm, with enlargement of carpal extremities; genua valga; lateral curves of tibiæ, with enlargement of their tarsal extremities. Always a weakly child; has suffered much from night-sweats. Was brought up by hand on milk-and-water, meat potatoes, &c., being added at five months of age.

These two children were the survivors of a family of four. In my notes I find the residence of the parents classed as "very good." It will be seen that F. L——, who was fed on milk-and-water only, was but slightly affected with rickets; but that E. L——, who was stuffed with meat and potatoes at the early age of five months (a severe trial for his young organs of assimilation) was rachitic "from the sole of his feet to the crown of his head," and as sadly cursed as "the Jackdaw of Rheims."

Rachitis is a disease resulting not from poverty, but from ignorance. Although not a fatal disease, it is a serious sort of mischief, as it stunts the growth of a great number of our countrymen, and must lower the physique of the English race. Is it impossible to educate mothers in the proper mode of feeding their infants? The advisability of taking measures for the amelioration of this unsightly disease, is, I think, worthy of the notice of the sanitary authorities.

I am, Sir, yours obediently,

Grosvenor-street, August 29th, 1876. FREDERICK R. FISHER.

P.S.—Improper feeding as a main cause of rachitis has long been recognised by my colleagues at the National Orthopædic Hospital. To my friend Mr. Carr Jackson I am indebted for first calling my attention to this point.

ARSENICAL WALL-PAPER.

To the Editor of THE LANCET.

SIR,—A bedroom in my house was recently repapered with a light, but certainly not a bright, green paper. On the very first night on which the room was used the occupant complained of pain in the throat and of mineral taste in the mouth; and fortunately the room was not used again until the paper had been removed. An analysis of the paper by Mr. Vivian Lewes, late demonstrator of chemistry at Wellington College, showed that the paper contained a large quantity of arsenic, whilst its unglazed condition rendered it most dangerous. A second analysis which I obtained was equally unfavourable.

Three letters addressed by me to the makers of the paper, representing to them the above circumstances, have not elicited a single word of reply; and no doubt they continue to supply this poisonous paper to their customers.

I have thought it well to call the attention of the Home Secretary to the present state of the law, which enables paper-makers thus to distribute arsenic in large quantities to the unsuspecting public.

Perhaps my experience may lead others to eschew all green papers not expressly guaranteed to be free from arsenic.

I am, Sir, your obedient servant,

Tottenham, August 17th, 1876. LEWIN HILL.

HOMBURG.

(*From our Roaming Correspondent.*)

HOMBURG VON-DER HOHE—for that is its proper name—the most fashionable watering-place in Germany, or perhaps in the world—is just now full to overflowing; and it cannot be uninteresting or uninstructive to the readers of THE LANCET to have put before them the impressions left on the mind of a physician after a ten days' sojourn among its woods, its gaieties, and its "Cure-guests."

Highly favoured by nature and marvellously improved by art has been this most popular of health resorts; and if at one time its gambling-table was among the chief of the world's scandals, a portion of its revenues has been so judiciously and lavishly expended for the comfort and amusement of those who come here, that one is almost content to take facts as they are, without thinking of the means by which these facts have been perfected.

The town stands on a plain elevated some six or seven hundred feet above the sea-level, and at the foot of the Taunus range of hills, whose pine-clad slopes form a natural amphitheatre at a distance of from two to three miles. From these hills breezes of refreshing coolness find their way into the town, and thus temper the heat of the sun, which otherwise might be unbearable. The open situation of Homburg, and its convenient distance from the hills, prevent the occurrence of those frightfully scorching days which are too common in many picturesque districts, and which prove terribly trying to delicate invalids. The soil is mixed, and is composed of slate, clay, granite, and sand; that in the town being almost entirely formed of sand and granitic detritus; and, as a result, it is very porous, and drains marvellously quickly. The water-supply is ample and excellent, and is derived from a reservoir which is fed from springs on the Taunus hills. The drainage is fairly good, and there is a singular lack of smells in the streets and houses.

Exact meteorological information is not to be got, although there are capital instruments in the Kur-garten. This is to be regretted, as it is manifestly of great importance in selecting a residence for an invalid to have exact data to go upon, instead of the often too favourable or too unfavourable impressions given by the residents or acquired by relatives of visitors. During the ten days of my residence here there has not been a drop of rain, and although the temperature has been high (it stood at 92° in the shade yesterday), the heat has not been oppressive because of the almost continual light breezes. It is said that the nights are often cold, and that the daily range of temperature is apt to be great. This is very likely to be the case, and we have had a few slight experiences of rapid change, but nothing remarkable. Visitors, however, should always be provided with warm wraps, in case of necessity, towards nightfall.

The streets and gardens of Homburg itself are well watered, and the dust is kept under, but out of the town the dust on the high road is something terrible, and when one sees a white cloud moving in any direction one has to infer that probably inside of it is a diligence or a carriage. This is a drawback to making country excursions, which is much to be regretted, since the environs are interesting and picturesque. Once in the pine woods, however, there is ample shade, the refreshing smell of the pine, and no dust, so that it is always worth while to make an effort to cross the dusty space between Homburg and its forest. Patients indeed are wisely recommended to seek these forests, and to spend as much time as possible in them.

What are the amusements of Homburg, and shall I be bored when I get there? is the question which every intending visitor is sure to ask, and it is so necessary to be able to reply to this question that I shall try to give an accurate account of Homburg life.

There are watering-places, and many, in which a man may be cured of his ills, but runs the risk of dying of the "blues." Such are but too common in England; and more is the pity, for assuredly healthy occupation or amusement for the mind is as essential a part of treatment as drugs, water, food, or climate. Homburg is, before all things, not a "slow" place, and there is just sufficient variety in the "daily treadmill" to prevent its rotations becoming irksome. Up at six in the morning, dressed (and very smartly, too, if ladies are concerned) and at the springs by seven. Then begins the morning promenade and the drinking of water to the strains of an excellent band. The Elizabethanquelle is the rallying point for the Homburg invalids. The health-giving fountain is prettily built into a sunken basin surrounded by an ornamental railing, round which the drinkers stand and receive the glasses of water from the hands of the attendants. From the fountain diverge avenues in all directions (one being covered, for wet weather), and in these avenues the guests leisurely saunter and chat, and listen to the band, whose kiosk is hard by. Nothing can be prettier or more healthful than this morning walk. The ladies dressed in their most becoming costumes, the sunlight penetrating the shady branches of the avenue and dancing on the gravelled walk, the band playing the pleasantest strains of Mendelssohn, Mozart, or Wagner (and shall we add Strauss and Offenbach?), to which the hum of conversation, and the flutter of the morning breeze as it gently stirs the foliage, serve as a low-toned accompaniment. And what is the matter with these 2000 or 3000 persons who walk here, and apparently with so much enjoyment? This is the question which the physician would put to himself, and the answer we should feel inclined to give would be something of this kind—Not very much is the matter; they are for the most part persons who are suffering from what might be called the "evils of society," late hours, artificially heated rooms, the tension of civilised life, and last, but by no means least, excessive indulgence in the pleasures of the table. Yes, assuredly Homburg is the happy garden of the Plethorides, and here it is that those who are burdened with an excess of adipose matter repair "to do Banting" in the most approved manner, and in the politest of polite society. In this parade one recognises old friends innumerable. Sir John Falstaff, Sir Tunbelly Clumsy, Squire Western, Prince Grogenuff, and the Gräfin von Güzzlemoch are all here in the flesh, and every shade of plethora presents itself as a clinical study to the eye. This fair impassive blonde, with chins in series, with many a dimple in her cheek, and many convex curves of beauty in her figure, has been, we take it, by the leisurely, stately manner of her walk, luxurious and lazy rather than gluttonous; but the gentleman close to her, whose complexion is "total gules, with eyes like carbuncles," has been a winebibber of an active and aggressive character. Here is one of those whose lot it is to "laugh and grow fat," and who merely comes because his wife insists; but there is another, with heading brow and fair round belly, whose dull face and short breathing seem to speak of downright physical annoyance. One or two limp a little or walk with a

crutch, and now and then the big cloth-boot speaks plainly enough of gout. The bath-chairs could be counted on the fingers of one hand—and, in short, the great mass of people is made up of those whom we should pronounce as absolutely sound. From its fine bracing air, Homburg is a capital place for delicate young people and convalescents, and the local physicians speak highly of their power of curing "plethora serosa," an unhealthy condition which is best described in the English vernacular as "flabbiness."

The morning parade over, there is breakfast, and "for those who are drinking the water," neither butter nor sugar is allowed, and thus a reason other than obesity is found for cutting off the carbo-hydrates from the diet. After breakfast, the papers, a novel, and a seat beneath the cool trees in the delightful gardens of the Kur-haus. At one o'clock the Germans and the foreigners generally dine, but the English prefer to lunch at this hour, and dine later—at 5, 6, or 7. The Germans, of course, take a light supper, and I think they have common-sense and science on their side to take their heaviest meal when the forces of the body are at a maximum, especially as no one thinks of work here, and the afternoons are too hot for anything except to sit and listen to the band, which plays here from 3 to 4. In the evening there is a drive through the charming woods, and another open-air concert, and by 10 o'clock all Homburg is in bed. "The waters" are given as an excuse for cutting off all unwholesome things from the diet, and strong wines, rich pastry, salmon, lobsters, strong condiments, &c., are absolutely not allowed, and thus the sleep of the Homburgers is sound and undisturbed.

What a difference is there in the life of the British aristocrat in London and in Homburg! In London he rises at eleven, or eight hours later than the sun, and seeks his bed at two or five in the morning, after having endured six or seven hours of a stuffy room, reeking of gas-lamps, dinner, and perhaps tobacco. Instead of spending his whole day in the open air, inhaling the ozoniferous breeze, he has been cooped up in the "house" or the club smoking-room, or, perhaps, by way of "exercise," has driven for an hour round and round in a circle. Then what a difference in the diet! Clear turtle, salmon, sauce tartare, and unctuous morsels so bespiced and cooked as to be fairly past recognition, have given place to bread and coffee, eggs, milk, braised beef, and stewed fruit. As for wine, the glass of "dry sherry," champagne, hock, port, and curaçoa, which the "patient" has taken mixed together, have given place to one small bottle of Rhenish or Moselle, and this perhaps diluted with Seltzer or Apollinaris. Is it to be wondered at that "plethora" in all its forms is quickly cured by such a change of living? But then the waters; how about the waters? Do they play no part in the cure? We must say that where so many things conspire to produce health, it is difficult to say what part each ingredient may play, but since what everyone says must be true, and since the opinion is almost universal that the Homburg waters are a miraculous panacea, and since we are absolutely powerless to refute the belief, we must, we suppose, allow them all the credit they have been accustomed to get. The *Elisabeth-brunnen*, which is the water that nearly everybody drinks, contains in each pound (16 oz) 89 grains of common salt and other chlorides, nearly 17 grains of bicarbonate of lime, and rather less than 2 grains of other saline ingredients, including 0·245 grain of bicarbonate of the protoxide of iron, which latter has so much effect on the minds, at least, of the drinkers, that we heard of a lady, who had consumed a pint and a half of the water, complaining of "the weight of metal on her chest." This wonderfully "curative" well, then, consists of a moderately hard water, containing a certain quantity of salt and a large amount of free carbonic acid (fifteen cubic inches to the pound). It is said to be alterative, and to be a tonic to the bowels. Sometimes it purges, just as cold water will, and sometimes it causes a tendency to constipation. Sometimes it lies "heavy on the chest," and lessens appetite, and again with others the appetite is increased. It is good for gout, so everybody says, and increases the total amount of solid urine (and so will pure water). *A priori*, we should have expected it to increase the acidity of the urine, but of this we know nothing. Exact information there is none, but of speculation there is any amount. It is undoubtedly greatly to the credit of Homburg that sojourners in it can drink considerable quantities of salt water before breakfast, and feel all right by luncheon time, and if these waters have no specific effect, they at least act as a most efficient bogy. You must not do this, that, and the other thing "when you drink the waters," patients are constantly told; and so terrified are they as to what might happen in their insides if these injunctions were disobeyed, that the doctor's orders are always attended to. They serve, in very many cases, where large quantities are taken, to deaden the appetite, and thus the patients are saved from those temptations into which they might otherwise be led. For my own part I have drunk a pint of Elizabeth in ten days, and although I feel refreshed and vigorous after my sojourn in this delightful town, I do not ascribe my good condition to the "waters" of which I have partaken so sparingly. This is assuredly a sceptical age, and nothing short of chemical analysis and accurate observation would have satisfied it as to the part played by the angel of Bethesda in the cures effected by that spring.

Homburg is a bathing-place as well as a drinking-place, and part of the daily routine for most of the guests is to take a bath. The baths are chiefly of two kinds, (1) fresh water baths, to which extract of pine-leaves is added; and (2) mineral baths. The first are a pleasant form of sensuous luxury, and the smell of the pine is simply delicious. It seems to have some stimulating effect upon the skin also. The salt water baths, containing carbonic acid, are also highly stimulating and exciting. They are admirably arranged at the Park-bad, where the water is gradually heated by steam, and the carbonic acid is not needlessly expelled by previous boiling. It is very curious to see the bubbles of carbonic acid adhering to the skin, but as to the part they play it would be difficult to speak with certainty.

Stimulating baths, salt-and-water to drink, and the inhalation of the purest air for sixteen hours out of every twenty-four, are all likely to favour metamorphosis, and if the diet be good and wholesome, as it undoubtedly is here, that metamorphosis is likely to be for the better.

Delightful gardens, agreeable society, good music, and healthful amusement make up the sum of life here, and it might almost be said of the pilgrims who come to Homburg what Bunyan said of those who journeyed to the land of Beulah:—"Then the pilgrims got up and walked to and fro; but how were their ears now filled with heavenly noises and their eyes delighted with celestial visions! In this land they heard nothing, saw nothing, felt nothing, smelt nothing, tasted nothing that was offensive to their stomach or mind; only when they tasted of the water they thought that tasted a little bitterish to the palate, but it proved sweeter when 'twas down."

August, 1876.

Obituary.

INSPECT.-GEN. SIR EDWARD HILDITCH, KT., M.D.,

HONORARY PHYSICIAN TO THE QUEEN.

SIR EDWARD HILDITCH died of heart disease at his house in Arundel-gardens on the 24th ult.

This officer was educated at St. George's Hospital. He took his diploma in 1826, and at once entered the Royal Navy, in which he saw almost unexampled service in the West Indies, continuing on that station from 1830 to 1855, with short interruptions at home. During that long period he saw probably more than any other medical officer of recent times of yellow fever, and for his services in several of its epidemics he received early promotion by successive steps: surgeon in 1822, hospital surgeon 1840, deputy-inspector 1844, and inspector-general 1854. In 1855, after having met a fearful epidemic of yellow fever in Bermuda, he was appointed to the charge of Plymouth Hospital, remaining in it until removed to Greenwich Hospital in 1861, from which he was put on the retired list in 1865, when that grand old institution underwent a transition preliminary to its final abolition as a retreat for the seamen worn out in the service of the country, in 1869.

His valuable services were duly rewarded with the appointment of Honorary Physician to the Queen on the institution of that distinction in 1859; and on his final retirement in 1865 Her Majesty was pleased to confer on him the

honour of knighthood as a fitting reward for eminently useful, faithful, and long-continued services.

Sir Edward Hilditch was a man of genial habits, making himself beloved by all who were related to him as patients, associates, or subordinates; and, at the same time he possessed a retiring disposition which caused his professional merits to be known and appreciated within his elected circle—the service he loved and cordially devoted himself to.

ANDREW FRANCIS EDWARDS, M.D.

THE medical profession and the public have sustained a great loss in the death of Dr. Edwards, of Wiveliscombe, Somerset, who, after visiting a patient on the evening of the 15th of August, on returning, was thrown from the carriage, and received such severe injuries as resulted in death on the morning of the 18th August. His great loss will be long and deeply felt by a large circle of professional brethren as well as his numerous patients and the public of his neighbourhood. Born in 1807, he commenced his professional career as a pupil in two extensive practices in Norfolk, thence proceeded to Guy's and St. Thomas's, where he was a diligent and hard-working pupil, in rotation filling the various offices. Passing the Hall and College in the spring of 1830, his taste for anatomy and surgery led him to Paris, where his time was employed in operative and other surgery, he being present during the Revolution of that year. Returning to England, and after beginning practice for a short time in Great Coram-street, he settled at Wiveliscombe in the spring of 1832, where he did hard work as a country medical man, with very few and short intermissions, to the day of his death, which may truly be said to have been in harness. In the year 1854 he graduated at St. Andrews. A steady and skilful operator, and one whose opinion in difficult cases was always to be relied on, his aid was often sought in consultation. A sincere friend, a good Mason, he lived beloved, and has died deservedly respected, as the large attendance of all classes at his funeral testified. To his poorer patients he was ever truly courteous and kind.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Aug. 24th:—

Holdsworth, Samuel Rayner, Wakefield.
Nicholson, William Rumney, Burnley, Lancashire.
Danstan, William, Liskeard, Cornwall.
Gairdner, John, Maidenhead Thicket.

The following gentleman passed the Primary Professional Examination on the same day:—

Rule, G. Fred. Henry, St. Bartholomew's Hospital.

ARMY MEDICAL SERVICE.—The following is a list of gentlemen who competed successfully for appointments in the Service at the examination held at the University of London on the 14th of August:—

W. B. Allis, 2220 marks; M. E. Ryan, 2081; H. J. Robbins, 1676; E. O. Reynolds, 1635; J. T. Carey, 1625; J. J. Morris, 1609; W. J. R. Rainsford, 1588; P. B. Tuthill, 1550; J. F. Williamson, 1540; J. Boyd, 1790; A. E. Hayes, 1782; A. Hewett, 1745; P. H. Johnston, 1744; J. Boulger, 1675; G. Laffan, 1675; E. A. Roche, 1625; J. B. Emerson, 1615; R. Robinson, 1600; W. H. Allen, 1506; J. J. Lamprey, 1485; F. Murchison, 1435; U. J. Bourke, 1409; A. C. Keith, 1395; J. S. Peyton, 1340; G. M. Russell, 1325; W. B. Large, 1305; A. W. Carleton, 1295; J. Brodie, 1285; R. C. Gunning, 1255; H. Cotton, 1230; J. P. Hunt, 1215; G. A. Hughes, 1180; F. G. L. Eager, 1055.

DR. WILLIAM TAYLOR has been elected an alderman of Cardiff.

DR. SIMON NICOLLS, of Longford, was found dead in bed on Sunday morning last.

THE UNIVERSITY OF EDINBURGH.—The annual graduation ceremonial in medicine in connexion with the University of Edinburgh took place in the General Assembly Hall on Tuesday, August 1st. The Right Hon. the Lord Justice General, Chancellor of the University, presided and conferred the degrees. There were twenty candidates for the degree of M.D., to three of whom gold medals were awarded for their theses. After the ceremony of conferring the degrees was concluded, Professor Lister delivered the usual address to the new candidates.

DR. CHARLES R. BROWN, of Beckenham, on leaving that place for Hastings, was presented by the inhabitants with a purse of the value of nearly 250 guineas, as a mark of personal regard.

A BOY aged seven years died of hydrophobia at Botchworth on Monday last. The wound, resulting from a dog-bite received six weeks previously, is stated to have been "cauterised at once." For such accounts to be of any medical value, however, fuller particulars of the kind of cauterising agent employed, and the exact time when and the extent to which it was used, should be given.

BEQUESTS ETC. TO MEDICAL CHARITIES.—A Suffolk rector has given £1000 to the Middlesex Hospital.—The Peterborough Infirmary has received £910, under the will of Miss Ruth Mattley.—Mr. William Wallace, of Dalston, bequeathed £500 to the Hospital for Diseases of the Chest at Victoria Park, £500 to the London Hospital, and £200 to the Royal Hospital for Incurables.—The Adelaide Hospital, Dublin, has received £451, under the will of Miss Batt.—Miss Isabella Kilgour bequeathed £100 to the Aberdeen Infirmary, and £100 to the Aberdeen Lunatic Asylum.—The Dover Hospital has received £200, under the will of Mrs. Henshaw Latham.—The Meath Hospital has received £1000 under the will of Mr. Archibald McComas.

Medical Appointments.

BERESFORD, R. de la Poer, M.D., L.R.C.P.Ed., has been reappointed Medical Officer of Health for the Oswestry Rural Sanitary District, at £126 for one year.

BROWN, J. J., M.B., F.R.C.P.Ed., has been appointed Senior Assistant Medical Officer to the Royal Lunatic Asylum, Morningside, Edinburgh, vice Maclaren, appointed Medical Superintendent of the Stirling District Lunatic Asylum.

COEE, Dr. W., has been appointed Medical Superintendent of the Barony Parish Hospital, Glasgow, vice Wright, whose appointment has expired.

DAVIES, H. N., L.R.C.P.L., L.R.C.P.Ed., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer to the Abergurky Colliery, Pontypridd, vice Phillips, deceased.

ELLSON, H. F., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for No. 4 or Bayton District of the Oswestry Incorporation of the Poor, vice Broughton, resigned.

FORTY, D. H., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer to the Swansea Hospital, vice Collins, resigned.

GAYE, J., F.R.C.S.E., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer of Health for the Dukinfield Urban Sanitary District, vice Robinson.

JERMYN, F. R., F.R.C.S.I., L.S.A.L., has been appointed Medical Officer of Health for the Erith Urban Sanitary District.

JONES, A. E., M.B., C.M., M.R.C.S.E., has been appointed House Surgeon and Secretary to the Royal Eye Hospital, Manchester, vice Hey, resigned.

KERR, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the West (part of) District of the Patrington Union, Yorkshire, also Medical Officer for the Hedon District of the Sculcoates Union, Yorkshire, vice W. Kirk, Jun., M.R.C.S.E., L.S.A.L., deceased.

LEACROFT, J. W., M.B., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Ilkberrow District of the Alcester Union, Warwickshire, vice Martin, resigned, and appointed to the Alcester District and the Workhouse.

LOBJOIN, J. A., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer of Health for the Farnham Rural Sanitary District, at £40 per annum.

MACFARLANE, W., M.B., C.M., has been appointed Assistant Resident Medical Officer to the Govan Poor-house and Asylum, vice Taylor, resigned.

MCNAUGHTON, J., M.B., L.R.C.S.Ed., has been appointed Medical Officer to the General Prison for Scotland, Perth, vice Absolon, deceased.

MOORE, Mr. E. H., has been reappointed Public Analyst for Sussex East for one year, at £50 and fees.

MUNGAVIN, T., M.R.C.S.E., has been appointed Medical Officer of Health for the Baildon Urban Sanitary District, vice Steel, deceased, at £30 for one year.

NOLAN, C. J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Shanagolden and Foynes, vice Hayes, resigned.

O'CONNOR, M. E., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Carrigaholt Dispensary District of the Kilrush Union, co. Clare, vice Pegum, deceased.

PAXTON, F. V., M.B., M.R.C.P.L., has been reappointed Public Analyst for Sussex West for one year, at 21s. per analysis for the first hundred, 10s. per analysis for the next fifty, and 6s. per analysis beyond.

PINDER, J. W., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Horsforth or No. 2 District of the Wharfedale Union, Yorkshire, vice Stonehouse, deceased.

PRICHARD, A. W., M.R.C.S.E., L.S.A.L., has been appointed Assistant-Surgeon to the Bristol Royal Infirmary, vice Bernard, resigned.

RAINSFORD, R., M.B., C.M., F.R.C.S.I., has been appointed Junior Surgeon to St. Mark's Ophthalmic Hospital and Dispensary for Diseases of the Eye and Ear, Dublin, vice Wilson.

RANDLE, J. M., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the Plympton St. Mary Union, and Medical Officer of Health for the No. 2 Sub-district of the Plympton St. Mary Rural Sanitary District, vice Holmes, deceased.

ROBERTS, A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Keighley Urban Sanitary District, vice Hilles, whose appointment has expired. £100 for one year.

RUST, H. R. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Wethersfield District of the Braintree Union, and Medical Officer of Health for the Wethersfield District of the Braintree Rural Sanitary District, vice H. Rust, M.R.C.S.E., L.S.A.L., deceased.

SHADWELL, St. Clair R., L.R.C.P.I., M.R.C.S.E., has been appointed Junior Obstetric Assistant to Guy's Hospital for the month ending 30th September.

SPARKE, G. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 2 District of the Mansfield Union, vice Curran, resigned.

STEPHENSON, F. I., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Bradninch District of the Tiverton Union, vice Clarke, resigned.

THOMPSON, J., A.B., M.B., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the Borough Police, Royal Leamington Spa.

TROTTER, L. B., M.B., C.M., has been appointed a Medical Officer to Lady Dunraven's Cottage Hospital, Clearwell, Gloucestershire.

TURNBULL, A. R., M.B., C.M., has been appointed Junior Assistant Medical Officer to the Royal Lunatic Asylum, Morningside, Edinburgh, vice Brown, promoted to Senior Assistant Medical Officer.

WALKER, Mr. H., has been appointed Clinical Surgeon's Assistant to the Glasgow Lock Hospital, vice Lowther, resigned.

WILSON, H., L.K.Q.C.P.I. & L.M., F.R.C.S.I., has been appointed Senior Surgeon to St. Mark's Ophthalmic Hospital and Dispensary for Diseases of the Eye and Ear, Dublin, vice Wilde, deceased.

Births, Marriages, and Deaths.

BIRTHS.

ARMSTRONG.—On the 27th ult., at Parrock-street, Gravesend, the wife of John C. Armstrong, M.R.C.S.E., of a son.

BURKITT.—On the 23rd ult., at St. Albans, the wife of W. R. Burkitt, L.R.C.S.I., Surgeon-Major 52nd Regiment, of a son.

COTTON.—On the 17th ult., at Seven Sisters'-road, the wife of Thomas Cotton, M.D., of a daughter.

GOODING.—On the 29th ult., at Heath Lodge, Blackheath, the wife of Ralph Gooding, M.D., of a daughter.

HILLIARD.—On the 23rd ult., at Belgrave-terrace, Holloway, the wife of Robert Harvey Hilliard, M.D., of a son.

HOBART.—On the 21st ult., at South Mall, Cork, the wife of N. J. Hobart, M.D., of a daughter.

LEWIS.—On the 27th ult., the wife of Louis Lewis, M.D., of Albert-street, Regent's-park, of a son.

MCDOWALL.—On the 26th ult., at Cottingwood, Morpeth, the wife of T. W. McDowall, M.D., of a son.

WALKER.—On the 21st ult., at Ladbroke-grove-road, the wife of Archibald Dunbar Walker, M.D., of a son.

MARRIAGES.

JAKINS—ARTHUR.—On the 17th May, at Christ Church, Longford, by the Rev. C. R. Arthur, B.A., brother of the bride, assisted by the Rev. Alfred Mason, William Vosper Jakins, Physician, of Ballarat, Victoria, formerly of Porchester-place, Hyde-park, eldest son of J. W. Jakins, Surgeon, of Regent's-park, London, to Charlotte Marianne, youngest daughter of Charles Arthur, Esq., of Norley Cottage, Longford, Tasmania.

OWEN—BREWER.—On the 15th ult., at St. Mary's Church, Eastbourne, by the Rev. W. R. Pierpoint, William Owen, M.R.C.S.E., of Carnarvon, to Laura Cecilia, eldest daughter of Alexander Brewer, Esq., Surgeon, late of Ebbw Vale Iron Works, Monmouthshire.

PALMER—AMY.—On the 23rd ult., at the Parish Church, South Hackney, T. Hurlstone Palmer, M.R.C.S.E., youngest son of John Palmer, Esq., of Baginton, Coventry, to Marian, youngest daughter of the late F. H. Amy, Esq. No cards.

WOODBURN—HELLEN.—On the 23rd ult., at the Parish Church, Ulverston, by the Rev. G. G. Morton, assisted by the Rev. F. J. Jomini, William Harrison Woodburn, Surgeon, of Broughton-in-Furness, to Mary Ann, only daughter of Joseph Hellen, of Park View, Ulverston.

DEATHS.

BOGIE.—On the 21st ult., at Fruids-park, Annan, Agnew Black Bogie, M.D., aged 57.

CLARKE.—On the 11th ult., at Greenwich, Joseph Clarke, Surgeon, aged 82.

CROSBY.—On the 21st ult., at Bootham, York, Thomas Crosby, M.R.C.S.E., aged 66.

CURRAN.—On the 26th ult., at Youghal, co. Cork, James Curran, L.R.C.S.I., aged 50.

EDEN.—On the 24th ult., at Norwood, Thomas Edward Eden, M.R.C.S.E., aged 85.

FIELD.—On the 22nd ult., at Rhyl, Poole Field, M.R.C.S.E., aged 41.

HADOW.—On the 31st July (not 9th August, as previously stated), at Aligurh, N.W.P., India, Gilbert Bethune Hadow, M.R.C.S.E., Surgeon-Major Bengal Medical Service, aged 43.

LAWRENCE.—On the 21st ult., at Queen-square, Bath, Joseph Lawrence, M.R.C.S.E., aged 51.

PRING.—On the 14th ult., at Pwllheli, John W. Pring, L.R.C.P.Ed., aged 32.

ROBERTON.—On the 24th ult., at Holly Bank, New Mills, John Roberton, L.R.C.S.Ed., aged 79.

WIDDAS.—On the 25th ult., at Mill View, Holgate, Yorkshire, Daniel Widdas, L.R.C.P.Ed., aged 31.

WILKINSON.—On the 20th ult., at Limerick, Dr. Thomas Wilkinson, Surgeon-Major Royal Limerick Fusiliers.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 9th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that Number, are earnestly requested to send it *without the delay of a single post.*

THE HEALTH OF ROME.

HAD the great author of the "Religio Medici" lived in our day, he would certainly have included among his "Vulgar Errours" the popular idea as to Rome's unhealthiness. Strange to say that idea has taken deeper root in England than in any other civilised country. We have repeatedly endeavoured to show the innocuousness—nay, the salubrity, of Rome for all visitors who will act with prudence; but it seems the death-rate, in spite of the explanations that reduce it to that of the healthiest of continental capitals, still inspires apprehension. Well, we shall give (*minus* these explanations) the sanitary returns of Rome for the week ending August the 13th. During that week the births were 141, the marriages 33, the deaths 127, the emigration 25, and the immigration 156. Out of every 1000 of the permanent population the mean annual death-rate was 20·0. In the same week the mean mortality was in Paris 26·8, in Vienna 27·7, in Berlin 44·6, in London 25·1, and in Chicago 32·5. The health of Rome during that week was precisely that of Edinburgh. Again, fever, whether intermittent or typhoid, is generally at its height in the month of August; but during the week in question the former type numbered only 4 deaths, and the latter but 4 also. In proof, moreover, of what THE LANCET has always maintained, that it is pulmonary tuberculosis and diseases of the respiratory organs that are most to be dreaded in Rome, we find that between the 7th and the 13th of August, 25 individuals died of tubercle in the lungs. From these ailments, however, the healthy British tourist, even in the dead of winter, has nothing to fear if only he will wear flannel and avoid sudden transitions of temperature. But to act as most do during their scamper through the Eternal City, and plunge, fatigued and perspiring, into this ice-house of a museum or that frigidarium of a catacomb, is simply to court illness, and to qualify for an early grave.

Mr. P. Hughes.—It will be found described in any work on Medicine.

SUMMER DIARRHŒA.

To the Editor of THE LANCET.

SIR,—Summer diarrhœa seems to be due, in the majority of cases, to three sets of causes, more or less combined—namely:

1. *External.* — The great difference between the day and night temperatures. Exposure to draughts. Insufficient clothing.
2. *Constitutional.*—The susceptibility of infants.
3. *Local.*—Food altered in character, by heat principally. Constipation.

Deficient intestinal action and secretion seem more common in summer than in winter amongst infants. Probably the greater supply of blood to the skin and increased action of the sweat follicles have some connexion with the diminished intestinal action. Altered foot and collections in the intestine irritate the mucous membrane, and cause it to be very susceptible of any exciting cause, external or internal. Altered food and constipation are the most frequent predisposing causes; exposure to draughts and alterations of temperature, with insufficient clothing, the common exciting causes; and congestion of the bowel the immediate cause. The pathology can only be ascertained by post-mortem examinations, which one has great difficulty in obtaining. The symptoms and stools point to congestion of the intestine, increased and altered secretions, in some cases ulceration, and to the small intestine as the most frequent seat of disturbance. With the present death-rate staring us in the face, prevention is better than cure, and demands the first attention. The following rules seem of sufficient importance to have the attention of the public drawn to them:—

1. Food of all sorts should be fresh, and free from decomposition.
2. Infants should never be exposed directly to draughts and night air.
3. The intestines should have a daily evacuation.
4. Flannel should be worn next to the skin.
5. A little lime-water may be given with the milk.

In treatment, I have found ice internally, moderate counter-irritation externally, a mixture composed of one grain of subnitrate of bismuth, two minims of dilute nitric acid, two minims of spirit of chloroform, in a drachm of water, if the secretions are altered in character, half a grain of mercury with chalk, and a grain and a half of powdered rhubarb, twice a day, sometimes combined with a grain or a grain and a half of compound ipecacuanha powder, for an infant one year old, as a rule, most beneficial. The treatment must vary with the peculiarities of each case; there is no universal panacea for infantile diarrhœa.

I am, Sir, your obedient servant,

Hampstead, August, 1876. FERDK. S. ALPORD.

House-Surgeon.—The course is unusual; besides it seems unnecessary. As to the fact of death, that is ascertained by the personal inspection of the body by the jury. The house-surgeon would be justified in objecting to nurses being taken away from their proper duties for that purpose.

E. T. M.—Capell's Domestic Medicine and Surgery, or Kesteven on Domestic Medicine.

Mr. Ernest Turner.—Apply to the surgical instrument makers.

GOITRE.

THE older surgeons, on the strength of outward signs merely, called every tumour on the anterior of the neck a goitre. The modern school reserves this name for tumours generated in a gland situated in front of the larynx, the thyroid. The cause of these morbid growths is still obscure. Goitre is met with in all countries, but especially in mountainous ones. In some localities the goitrous are also cretins. This coincidence is due, most likely, to the tumour compressing the carotid artery, the feeder of those parts of the brain which subserve intellectual action. As a rule, however, goitres seldom compress the carotid, and the majority of the goitrous are not cretins. The disease occasionally assumes epidemic proportions in garrisons, a phenomenon which, according to Henri Larrey, would most often be manifested in soldiers who had been peasants, accustomed to have their necks free, and all at once subjected to the constriction of a stiff and tight collar. This explanation seems confirmed by the readiness with which the tumour disappears when the constriction is withdrawn. Goitre, developing slowly, attracts the patient's attention only at the stage of tumefaction. It causes no suffering, and, but for its unsightliness and the popular belief that it is a sign of "scrofula" or of mental inferiority, the surgeon would rarely be called in. In many cases, however, the tumour in its development compresses the organs situated below it—organs of the highest importance, such as the arteries which carry the blood to the brain, the veins which bring back blood to the heart, the nerves of the larynx which minister to the functions of the voice, the trachea which conducts air to the lungs, and, finally, the œsophagus which joins the stomach to the back of the mouth. Sometimes the goitrous have head symptoms, or they cough, cannot articulate, cannot swallow, or, above all, complain of dyspnœa. It is this last symptom that most frequently calls for radical treatment—a treatment which varies with each species of tumour, and tests, first, the diagnostic acumen of the surgeon, and, next, the resources of his therapeutic arsenal. The reader is directed to the admirable "Leçons de Clinique Chirurgicale" of Léon Labbé (published by Delahaye) for sound guidance in this department of the subject.

Finsbury.—The book named may be relied on.

THE LATE INQUEST ON A LUNATIC SURGEON.

To the Editor of THE LANCET.

SIR,—Your annotation in THE LANCET of the 19th inst., on "The late Inquest on a Lunatic Surgeon," is neither a fair nor an impartial one, nor are the elements of the case so simple as you endeavour to show. When the whole of the facts are taken into consideration, a candid and unprejudiced person would hardly consider the argument of the defence, as you term it, unanswerable, or the hypothesis that death was due to violence, a forced one, and deserving of failure.

I beg to call your attention to some of these facts in detail, using for the purpose the notes of the post-mortem examination made by Messrs. Goodsall, Butlin, Ingolby, and myself, in presence of Dr. Schofield and Mr. Pugh.

First. As to the fractures, the following were observed:—

(*a*) "A line fracture, extending from the occipital bone on the right side across the lambdoidal suture into the squamous portion of the temporal bone, about three inches in length; a thin membrane covering the interior of the skull at and about the seat of fracture. In connexion with this fracture was an ecchymosis under the scalp over the right occipital protuberance of about an inch and a half in width, and an old discoloration of the dura mater on the right side."

You say that the existence of this fracture was given up; but it was not so. That it had no connexion with the death was the only point admitted. I believed, from the account I received of the symptoms present when my brother fell from his horse in April last, that the fracture occurred then. A small piece of the dried skull was produced at the inquest, which had been removed at the post-mortem in order to examine the state of the two Wormian bones which were found in the lambdoidal suture, and one of which appeared to have been loosened, as it could be moved by pressure, and the line fracture extended to it, as also the membrane above mentioned.

(*b*) "A fracture of the sternum, extending from just below the third costal cartilage on right side to just below the second on the left side. A small fragment of bone separated from left side in front of sternum at the seat of fracture, and two tiny fragments in the soft parts close to the left side of sternum at seat of fracture. Bruising in front of sternum at seat of fracture. No attempt at repair."

This fracture must have been caused by the application of a very considerable amount of force to the surface of the chest, and within a very few days of death. As to the abscess in connexion with it, said to have been opened on the morning of the 13th (the day of death), "a small incised external wound was found, about three-quarters of an inch long, immediately to the right of sternum over the third costal cartilage, leading down through the substance of the pectoral muscle. No abscess cavity discernible; no pus or blood. Pectoral muscle discoloured beneath this point over an area of two to three inches in diameter." Now, if an *abscess* had existed in this situation prior to death, and two ounces of unhealthy pus had been evacuated, surely some trace of it would have remained. The reason for the incision must be a matter for conjecture.

(*c*) The ribs. "The second, third, fourth, fifth, sixth, seventh, eighth, and ninth ribs on the left side, at points varying from one to two inches from the costal cartilages, have all been fractured. The corresponding ribs on the right side are in a similar state. The seventh on the left side is ununited; also the third, fourth, eighth, and tenth on the right side. The fifth, sixth, and tenth on the right side have been broken in two places; also the tenth and eleventh on right side and left side are broken and ununited. There is a varying amount of thickening about all the fractures. Opposite the fracture of the third rib on the right side a small quantity of pus oozes from an opening in the pleura. The last rib on right side is fractured one inch from the spine. Abscess in erector spinæ muscle opposite this fracture; another and a larger abscess in erector spinæ of opposite (left) side, leading down to seat of fracture of eleventh rib."

An extensive extravasation in the tissues behind the right kidney (which had been removed) was observed, and by cutting through these the fracture of the twelfth rib near the spine was discovered. These fractures must evidently have been caused at various times during the nine weeks of the unfortunate patient's stay in the asylum, some of them within a recent period of death, and by severe and *direct* violence. There was no appearance of disease about the bones, nor were the ribs unusually brittle; to test their strength, one or two were broken at the time of the post-mortem, and required the application of considerable force for that purpose. I find, after minute inquiries, that about nine years ago my brother was said to have broken *two* ribs by falling through a grating which had been left open; but, with that exception, I can say positively that he had never sustained any fracture of the ribs previous to his admission into the asylum, and for several years I have been in constant communication with him.

Secondly. As to the ulcer of the stomach, which was examined very carefully by Mr. Goodsall, it had every appearance of being an old one, which had healed, and of which the peritoneal floor had become adherent to some neighbouring viscus, and, moreover, the patient had symptoms about a year and a half ago which would quite explain its existence at that time. The ulcer was circular or nearly so, about the size of a threepenny-piece, and had penetrated the mucous and muscular coats; its edges were adherent and polished, and on the peritoneal surface was a firm membrane of adhesion. From the fact of there having been a previous post-mortem examination of the chest and abdomen, it must be a matter of doubt as to whether the rent in the peritoneum was made ante or post mortem. I *believe* that it was the latter. There was no appearance of congestion about the mucous membrane of the stomach, or any evidence of recent active disease in the neighbourhood of the ulcer or in any part of the viscus, which contained about two ounces of fluid, but no coffee-ground material or blood, traces of which would surely have been found if the vomiting spoken of had really existed. The vomiting of the heavy breakfast and subsequently of dark-coloured fluid was spoken of by one of the attendants; but implicit confidence can hardly be placed in his evidence, for though he stood within a few feet of my brother's bed during the whole of our interview on July 10th, and though he could remember other subjects of our conversation, he swore to an absolute lie—viz., that no complaints of having been kicked were made to me by my brother. "The intestines were glued together with quite recent lymph."

Thirdly. As to the general paralysis, from which the patient was said to be suffering, and which is supposed to have rendered his bones more liable to fracture, though it would most probably have come on had he lived a while longer, I do not think that it is at all clear that it existed at the time of his death; at any rate I observed no indications of it on the 10th of July. He talked to me for an hour, and articulated perfectly and without the slightest difficulty; and on his admission to the asylum he was tested by the medical superintendent in the presence of another brother, with negative results. I believe that all authorities on the subject state that the first symptom of general paralysis is a defect in the power of articulation, and this was confirmed to me by a gentleman who was for some time an official in a large asylum, and had seen many cases of the disease.

Fourthly. The patient was said to be an unusually violent and unmanageable one; but yet, according to all the attendants, he could be so easily controlled, no coercive measures were ever necessary beyond "the taking hold of his hands for a minute or two," and "he would do what he was told at the second or third or perhaps fourth time of asking." Before his admission he was very talkative, but not violent.

Taking into consideration the above facts, with the statements of the patient himself, and those of the two epileptics who were examined before the coroner, I think that we were perfectly justified in attributing the poor fellow's death, as we did, and do, to peritonitis and exhaustion following the repeated injuries inflicted on him during his nine weeks' stay in the asylum, and that our hypothesis cannot fairly be termed a forced one. I have confined myself to the strictly medical facts of the case in this letter; but other circumstances connected with it, and which will be best discussed elsewhere, tend to strengthen the conviction we, the relatives of the unhappy man, entertain, that he was subjected to repeated acts of brutal violence, and that his death was caused by these—that he was, in fact, literally kicked out of life.

I am, Sir, your obedient servant,

Coventry, August 29th, 1876. C. C. WIMBERLEY.

THE INEFFICIENCY OF THE PIL. PHOSPHORI, P.B.

Messrs. Savory and Moore have written to us to call our attention and that of the profession to the unfavourable reports which are heard on all sides respecting the therapeutical action of the pil. phosphori of the British Pharmacopœia. As one illustration, they state that they recently received the following letter from an eminent London physician:—"Dr. ——— wishes his patient (the bearer) to take 1-30th of a grain of phosphorus three times a day. The pills he had *passed through his bowels unaltered*, and Dr. will feel obliged by Messrs. Savory and Moore's attention to this point." The pills supplied in this case were prepared in accordance with the British Pharmacopœia; but Messrs. Savory and Moore's own form of the pil. phosphori, in which the phosphorus is divided and preserved by fat, and is capable of mixture with other matters, is entirely free from this objection, and they state that this latter preparation is invariably used by them in dispensing prescriptions, unless the Pharmacopœia form is *specially* ordered. If the one is soluble and the other insoluble in the stomach, there cannot be much doubt as to which is the best preparation to employ.

BOGUS DEGREES.

To the Editor of THE LANCET.

SIR,—Inasmuch as students have to overcome various and enough difficulties to obtain qualifications, it behoves us to guard against the piracy of those scamps who would defraud not only the "sick and the needy," but also the practitioner; and in calling your attention to the following, published in a daily paper, may I ask who is most to blame—buyer, seller, publisher, or public?

"DIPLOMA.—Wanted, one of any German or American university, as M.D. Address, M.D., 52, Amersham-vale, New-cross, S.E."

Hoping you may find space to expose so gross an insult alike to the profession and the world at large,

Believe me, Sir, to be yours, &c.,

Aug. 29th, 1876. TUTAMEN.

SANITARY STATE OF LOWESTOFT.

We learn on the authority of the local medical officer of health that there is a considerable discrepancy between the figures in his Returns as to the death-rate, zymotic-rate, and diarrhœa-rate, and those of the Registrar-General, which, he thinks, is probably to be explained by a difference in the modes of calculation. Thus, the Registrar-General takes his deaths from the three sub-districts, Lowestoft, Kessingland, and Gorleston; while the Returns of the medical officer of health show the deaths in (1) Urban and Port districts (including Lowestoft, Kirkley, and ships; and (2) Rural district (including all the parishes of the Mutford and Lothingland Incorporation, except Lowestoft, Kirkley, and Gorleston). The Port Returns show only one death from small-pox since April, 1874, the case being brought from Glasgow; and of the diarrhœa cases, all, three excepted, occurred in children under two years of age. The diarrhœa in these cases is attributed to improper diet and careless exposure to cold and wet; and if, as we are informed, the mothers give their infants, of nine months old and above, food consisting of potatoes, herrings, cheese, or anything else at hand, cases of diarrhœa may be fairly ascribed to this cause rather than bad water or defective drainage. The following table having been placed at our disposal, we publish it in order that a popular watering-place like Lowestoft may not have to answer for sins not its own:—

1. Lowestoft Urban and Port districts comprise Lowestoft, Kirkley, and Port.
2. Spring quarters—i. e., 1st April to 30th June.

1874	... Population	16,818	... Death-rate	15·4
1875	... „	17,196	... „	15·8
1876	... „	17,651	... „	12·2

No calculation is attempted as to the hundreds of sailors out and in.

3. Diarrhœa: autumn quarters—

1874	... ... 14 cases.
1875	... ... 16 „

4. Zymotic diseases: spring quarters—

1874	... ... 10 cases.
1875	... ... 6 „
1876	... ... 9 „

5. In the autumn quarters the population is increased by at least 1500 visitors.

L.R.C.S.—There is not, so far as we are aware, a book devoted to the consideration of "East and West Indian Poisons."

Mr. J. Vas. Abbott.—Apply at the office of the journal in question.

THE ACCIDENT ON BOARD THE "THUNDERER."

To the Editor of THE LANCET.

SIR,—Will you oblige me by reprinting a note that has already appeared in the *Hampshire Telegraph* of Aug. 26th?

I am, Sir, yours, &c.,

Haslar Hospital, Aug. 24th, 1876. W. R. E. SMART.

'THE MEDICAL OFFICERS AND THE 'THUNDERER' EXPLOSION.'

SIR,—I am pleased with the sensible remarks made by your Naval Correspondent on the 19th inst. concerning the ridiculous rumour that decorations may be awarded for the services rendered at this hospital to the sufferers by the *Thunderer* casualty. That rumour was fostered, I believe, by a Service paper, which ought rather to have detected at once its impropriety and to have quashed it, knowing that military decorations are not attainable by medical officers under any other regulations than those applicable to combatants. In this instance there are several of the latter, and of engineer officers also, who have narrowly escaped with their lives from the awful casualty in which no blame is probably imputable to them. When that point has been satisfactorily cleared up, it would indeed be a gracious act to regard them as primarily worthy of such honours as, after a conflict in the deadly breach, are awardable to those who have gone through it without reproach. Under such circumstances, the suggestion of giving decorations to medical officers who have simply done their duty, under, it may be, happily, unfrequent circumstances, savours to my mind as one of derision; and I would even go so far as to say, after twenty years' service in naval hospitals in all climates, that I could have felt no personal pride in superintending this the noblest of our admirable naval hospitals, possessing an amplitude of resources, if it had been proved incapable of meeting a casualty of thrice the extent with equal efficiency to that displayed on the late occasion. It is often the lot of hard workers in our profession to have no other reward than the self-satisfaction of having done their best in time of trial; but here grateful expressions from sufferers and their friends have been well pronounced, and this is pleasing to all those who have contributed to the results. To earn, by general consent, a leaflet from the palm sacred to humane actions should be the highest ambition of every single-minded military surgeon, as it is slow to fade, and it flourishes within the reach of all; while so-called military decorations, attainable by few, are of but little value unless significant of the war services of the individual, being otherwise a mockery. Hoping you will insert this as my views regarding a personally offensive rumour,

"I am, Sir, your obliged servant,

"WILLIAM R. E. SMART, Inspector-General.

"Haslar Hospital, 24th August, 1876."

THE EPIDEMIC AMONGST ELEPHANTS.

WITH reference to an epidemic which has broken out amongst Mr. Sanger's elephants, a Veterinary Surgeon writes to say that, after having made a careful post-mortem examination of one animal, he is enabled to state that the malady is caused by the presence of parasites in the intestines. There were some hundreds of them, described as "amphistomes" and "strongles." Some were found between the coats of the intestine, others on their free surface, while the excretory ducts of some of the glands were found blocked up with them. The animal examined, in addition, had suffered from double pleuritis.

THE ADULTERATION ACT AND PROVISIONS FOR WORKHOUSES.

THE Chelsea guardians should exercise a closer supervision over the supply of food for their workhouse. Dr. Barclay, medical officer of health for the district, lately gave the following results of analyses of certain provisions supplied to the workhouse infirmary:—1. The coffee contained not less than 25 per cent. of chicory. 2. The arrowroot contained not less than 30 per cent. of tapioca-flour. 3. The oatmeal was sour, and quite unfit for food. 4. The porter contained 9·5 per cent. of proof spirit. 5. The brandy contained 8·4 per cent. of proof spirit, or was 16 under proof. 6. The port wine contained 35·5 per cent. of proof spirit. 7. The sugar was coarse and dirty. 8. A sample of milk examined was deficient in solids.

J. M. F.—It would probably prove hurtful.

ADULT DIARRHŒA AND CHOLERA.

To the Editor of THE LANCET.

SIR,—In a late number of your journal you allowed me to state the treatment of infantile diarrhœa which I had found successful in a practice of many years; and the occurrence of a fatal case of English cholera in a northern district of our City becoming known to me (I fear by no means a solitary instance in this cholaic weather), I ask leave to dilate further on the subject in regard to those attacked with diarrhœa in adult life.

There are two stages of diarrhœa which it is important to distinguish. The first is the common attack of spasmodic pain in the bowel, with or without diarrhœa, which is met with everywhere at this season, easily cured by popular remedies of stimulant aromatics of every kind. The second, where these fail, where all the symptoms are aggravated, and, in addition, where the skin is cold, clammy, and covered by profuse perspiration, giving to the touch exactly the feel of wet chamois-leather. This stage leads to death by exhaustion; but sometimes runs at once into cholera, and then presents every feature of the most fatal Asiatic type.

Now, I wish to say that, with certain exceptions, there is not the least reason why patients should die of these attacks. I speak from ample experience when I assert that, where there is no natural constitutional debility or abnormal cause of weakness, diarrhœa of the worst type and cholera with intense collapse, pulselessness, aphonia, and coldness are perfectly controllable by the hand of art; and that when this pest again visits our shores, the method of cold application, intelligently used, will most materially diminish the number of deaths.

But such being now of less immediate interest, I beg attention to cases which at this season are of great importance. Men suddenly stopped from business tours, ladies and their families from seeking health in the country, or laid up during their whole vacation amid the discomforts of a country or seaside lodging, are treated usually with hot bathing, hot poulticing, hot potions, hot muffling, aided by leeching, sinapisming, blistering, with various drugs, and a strictly regulated diet. This is a description I have had abundant means of verifying, not only here, but from various watering-places round the coast, for the last fifteen years, and, as a proof, I will cite a case of recent occurrence.

At this time last year a gentleman asked me to visit his wife a short way out of town, and on the road told me that for a number of years past she had suffered at the same season similar attacks; that they appeared to be increasing in length, and were certainly so in violence; and that last year, 1874, when by the seaside, she suffered for three weeks from this, what was supposed to be inflammation of the bowels, so severely as to cause fears for her life. Her convalescence lasted some months. The husband then added that experience had taught him that the leeching, blistering, bathing, &c., just alluded to, to which on every occasion and everywhere she had been subjected, seemed to give her no relief, and concluded by candidly saying he expected no benefit from my visit, but that it was right to have a doctor. I found the patient smothered under a heap of blankets, and a nurse bringing in a poultice, which was applied as hot as she could bear every hour, day and night, to the belly. This was swelled, tense, and tender to touch, and with her other symptoms indicated a severe attack of autumnal diarrhœa. The hot poultices I replaced by cloths wrung out of the coldest water procurable till ice was had, stripped off the blankets, opened the windows, had a cold bath prepared for her, gave cold drinks instead of hot, ordered fifteen minims of chloric ether every three hours, and took my leave, assuring her that the sleep which had left her would return that night, and that, instead of three weeks, her detention in bed would not exceed three days. And so it literally turned out. The lady was quite well of the attack in a week; and a fortnight ago, when again seized with the well-remembered symptoms, she drove to my door to know what she was to do. I gave her a drachm of Gregory's powder, a drachm and a half of chloric ether in an eight-ounce mixture, ordering the usual cold diet, cold bathing, &c., and she got well at once.

I stated in a former letter that medical interference was perfectly unnecessary in infantile diarrhœa. In that of the adult I believe it to be necessary; for the relief given by aromatic stimulants, chloric ether, essence of peppermint, and other well-known remedies is such that they *must* be administered, and that, too, by a skilful hand.

I am, Sir, your obedient servant,

J. W. MACKENNA, M.D.

Great Marlborough-street, W., Aug. 22nd, 1876.

Mr. Harry Lupton.—The question is not a medical one, and our correspondent will readily understand that we have enough to do to answer all the strictly medical questions which are put to us without going into other regions.

Protestus.—We do not recommend individual practitioners.

BLOOD DRINKING.

AN American publication contains the following:—

"Blood is becoming the fashionable beverage in Cincinnati, being a great remedial draught for invalids suffering with anæmia and general 'run down.' The *Cincinnati Commercial* describes a place in John-street, where between two and four o'clock in the afternoon ladies congregate and drink blood fresh from the slitten throats of bullocks. They seem to enjoy it; but it is said to be not altogether conducive to health. At the slaughterhouses in this city, the East River consumptives may be seen almost any day drinking the life blood of steers; but as yet the custom has not become as fashionable as it is said to be in Cincinnati."

A NEW HEALTH RESORT.

AMONG the many signs of Italy's regeneration must be included the appreciation she is beginning to show of her advantages in health-resorts—in places where the invalid or the *ennuyé* can recruit his enfeebled body or mind under the conditions of genial climate, invigorating mountain air, lovely scenery, and good dietetic resources. Such a place is Boscolungo, one of the most picturesque spots of the Tuscan Apennines, 1200 metres above the sea level, accessible by excellent roads, supplied with abundance of pure water, and embosomed in forests which nature seems to have disposed so as to emulate the wooded glades of England. Professors Mantegazza and Tommaso-Crudeli have recorded their opinion in favour of its salubrity, its fitness for phthisical patients, and, above all, for the sufferers from that nervous exhaustion to which the etiologist traces the lowered nutrition which underlies so much of what is afterwards vainly treated as "consumption." The pine woods and fir clumps add their wholesome evening exhalations to an atmosphere whose temperature even at this sultry season never exceeds 20° C.; while every temptation that a rich flora can hold out to the botanist is matched by the interesting tours that invite the Alpine pedestrian, or the glorious effects of sunrise and sunset that appeal for preservation to the amateur landscape painter. Accommodation on a comfortable scale has been provided in the lately established Albergo, and the proximity of the noble cities of Pistoja and Florence affords opportunity of relieving whatever monotony may have survived the varied occupation with which the hours are beguiled at Boscolungo.

Mr. Fleming.—The matter shall receive attention.

CASE OF TRIPLETS, WITH A FOURTH BLIGHTED FŒTUS.

To the Editor of THE LANCET.

SIR,—The following case has occurred in my practice during the past week, and, as it may be interesting to the profession or some compiler of obstetric memoranda, perhaps you will kindly allow it to appear in your Journal.

About 9 A.M. on the morning of Aug. 25th I was summoned to attend the wife of a coal miner in the village of Brownhills. About an hour and a half after my arrival at the house she was delivered of a full-grown male child, the presentation of which was "breech." Some twenty minutes or more after its expulsion, I made an examination, and found, on running my finger along the cord, a large, rounded, tense mass, which proved to be the membranes of another fœtus. I waited for some time to see if the uterus would resume its action. After the expiration of two hours I decided on rupturing the membranes, and in twenty-five minutes afterwards a second male child, considerably smaller than the first, was born; this presentation was "pedal." Upon placing my hand on the abdomen after this second birth, I found the uterus nearly as large as at first, and very little reduced in size. I made another examination, and found the membranes of a third fœtus presenting; these I speedily ruptured, and another fully developed male child (the largest of the three) was immediately born; this presentation was also "breech." In about ten minutes after the expulsion of the third child the patient had a strong labour pain, and a fœtus of presumably about three or four months was expelled. There were two placentæ, and, on examining them, I found that the cords of the second and third child, as well as that of the blighted fœtus, were attached to one placenta, and that of the first child to the other placenta.

The mother (who is about thirty-two years of age, and who, strange to say, has *twice been delivered of twins*) and the three infant male children are doing well.

I am, Sir, your obedient servant,
DAVID EDGAR FLINN, L.K.Q.C.P.I.

Brownhills, Staffordshire, Aug. 29th, 1876.

PEABODY BUILDINGS.

THE medical officer of health for Southwark, Dr. Bateson, in his Annual Report, calls attention to the low rate of mortality which prevailed in the blocks of houses known as the Peabody Buildings during the year. While the death-rate in the parish was over 24 per 1000 annually, the deaths in the Buildings, 27 in number, gave a rate of only 12 per 1000. This rate we have reason to believe, however, is understated, and we are therefore not disposed to attach undue importance to such a comparison. Dr. Bateson, while praising the structural completeness and extreme cleanliness which distinguish the houses, together with the temperate and provident character of their occupants, points out that the ventilating arrangements are far from being perfect.

Mr. C. Wheelhouse is thanked.

QUESTIONABLE LETTERS.

IN this dull season of the year the usual shower of letters descends upon the editors of the daily press, to fill the space left vacant in their columns by the parliamentary debates and doings of society. We are sorry, however, to see that many members of our profession have been infected with this scribbling mania. We have always held that medical men should eschew as much as possible entering upon discussions in the public press. Occasions, of course, must arise when it is necessary to do so, as, for instance, in Mr. Royes Bell's letter to *The Times* in defence of the memory of his relative, Mr. Bravo. But when the occasion arises, let the letter, like the one alluded to, deal only with questions in hand, and avoid all egotistical professional remarks, which, we regret to say, form too often the sole substance of medical letters to the lay press. Above all, we must deprecate the practice of appending to the names their owners' qualifications, whence procured, together with a list of half a dozen appointments which they may happen to hold.

AN "UNLOCALISED" BELLIGERENT.

THE evils of the Turko-Servian war are not "localised," however effectively the revolt may be. Turk and Servian alike are very perfunctory—the former by habit, the latter by necessity—in burying the dead on the battle-field. The scene of conflict having been shifted to the Servian frontiers, the border states are beginning to suffer from the effluvia carried by the wind from the recent centres of carnage, and are justly alarmed at the dangers to health that may ensue. In Austro-Hungarian journals, as well as in those of Moldo-Wallachia, we read of the measures proposed by the local sanitary authorities to obviate this offensive and, in the long run, pestiferous visitation—measures which mainly resolve themselves into the cremation of the dead. The belligerents are informed that, if need be, they shall be assisted with men and means to carry out the process. The proposal will probably end in adding another to the many philanthropic duties fulfilled by the volunteers of the Red Cross!

"DIAGNOSIS OF PARALYSIS."

To the Editor of THE LANCET.

SIR,—In your impression of Aug. 26th, under the heading "Diagnosis of Paralysis," I read a communication from Dr. Medlicott respecting the inquest on a man named Charles Bendall, residing in East Wells. Your opinion is asked on the whole case, including medical evidence; and you have given one. But I cannot help thinking that the condition in which I found Bendall has not been properly represented to you. I will now state this condition as briefly as I can. I visited him at about a quarter to six o'clock in the evening. He was lying on a couch in an unconscious state; stertorous breathing, dilatation of both pupils, paralysis of the right side, a weak and irregular pulse, skin extremely pale, and frothy saliva issuing from his mouth. I examined his head to see if there was anywhere any trace of a blow, which would account for the existing symptoms, but could discover nothing of the kind. The history I received from his wife was that he had fallen down suddenly whilst at his work at the asylum, and that he had been seen by one of the doctors and sent home. With this history, and with the condition in which I found deceased, and in the absence of any evidence of a blow, I fail to see that I could arrive at any other conclusion than the one I did—viz., extravasation of blood on the surface or into the substance of the brain. I quite agree with you in that portion of your opinion in which you say, "it is of course always desirable to keep a patient so attacked as quiet as possible, more particularly when a suspicion of weak arteries exists, as would be the case in presence of the gouty diathesis." I know nothing about Bendall either as regards his state of health or way of living. I have never attended him myself, and I am assured by his widow that he has not been under any medical treatment for the last four or five years, with this exception, that some time since (she cannot fix the date) Dr. Medlicott gave him a bottle of medicine for the gout. The suspicion of weak arteries and the gouty diathesis, in my opinion, confirms my diagnosis. In fact, I should have given a certificate of the cause of death in the usual way, had I not felt that it was a case which ought to be made the subject of inquiry.

I am, Sir, yours respectfully,
G. OWEN RIDDON, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.

Wells, Somerset, Aug. 1876.

To the Editor of THE LANCET.

SIR,—I see in your impression of last Saturday your opinion is requested upon a verdict that was passed by the jury, over whom I presided, at the inquest on the late Charles Bendall, of Wells. The verdict quoted, as you observe, was no verdict at all; it was the opinion of the jury formed after I left the Court, and inserted in the *Wells Journal*; the real verdict on my inquisition being "Apoplexy." The sworn evidence of Dr. Datt showed that he was called to see the deceased, who was seized with paralysis whilst working on the asylum premises. He distinctly stated to me that he did not minutely examine the case, and, not knowing the ranges of the asylum, he went to Dr. Medlicott, who ordered Bendall to be removed home. Dr. Datt made the arrangements, but never saw Bendall after his first visit to him. These are the broad facts, and, as you are asked for your opinion, I have thought it right to lay them before you as they appeared before me.

The question, so far as I can see, simply resolves itself into considerations for humanity; and we know, from every-day experience, the views of such considerations are as wide as the poles in the minds of different individuals, from the Levite on the one hand to the Samaritan on the other. But I must confess, as a medical man, too great zeal was not shown towards Bendall at the time he was stricken down with paralysis—a condition which the case ultimately proved to be a most serious one and requiring him, I should imagine, "to be kept as quiet as possible," which, to say the least, was difficult to be carried out by a journey in a spring waggon for a mile and a half. As "Audi alteram partem" is the motto of THE LANCET, I am sure I need plead no other excuse for laying the case thus briefly before you, which I have done with the best intention, and not with a view to bolster up the expressions of the quondam jury.

I am, Sir, yours faithfully,
SAMUEL CRADDOCK,
Coroner for North Somerset.

Shepton Mallet, Aug. 30th, 1876.

Mr. L. G. Blyth.—If our correspondent will send us the particulars of the operation we will insert his letter.

SMALL-POX IN CHORLEY.

To the Editor of THE LANCET.

SIR,—Will you allow me to correct an error which I notice in your report on "Small-pox in Chorley" in your last issue. Blapham, the township in which the five deaths of the unvaccinated occurred, is not comprised in the Chorley Union, but forms a part, I believe, of the Ormskirk Union.

There has been no fatal case in this Rural Sanitary District, and only three or four of modified small-pox, all the patients having been well vaccinated. Mawdesley, the township in which they occurred, is contiguous with Blapham, whence the contagion originated.

There has not been a fresh case for four or five weeks, so that it may be hoped there will be no recurrence of the disease.

Yours &c.,
J. A. HARRIS, M.D., Medical Officer of Health.

Chorley, Aug. 28th, 1876.

FOREIGN HOTELS.

To the Editor of THE LANCET.

SIR,—At this time of year, when so many are running away to seek rest and relaxation in a foreign watering-place, it may be well if I give you the benefit of recently acquired experience of the lower part of the town of Dieppe.

A few days since, I arrived at Dieppe in the evening *en route* for England, intending to start for Newhaven by an early boat the following morning; and having heard that there was a large and good hotel quite close to the point of embarkation—namely, the * * * * *—I went there, arriving just in time for the *table d'hôte*. At dinner the *salon* was at times perfumed by a most sickening stench, evidently sewer gas, which seemed to fill the room in sudden gusts. Daylight, the next morning, revealed sufficient to account for this, for immediately under the windows of the *salon* was one of those large openings into the sewers—say three feet long by five inches—which one so often sees in the kerbstone in foreign towns. About eight or nine feet from this was a species of kitchen midden, consisting of all sorts of garbage, which an old woman was raking about in search of curiosities; while, not twenty yards off, a large sewer emptied itself into the harbour, and, it being low tide, perhaps a quarter of an acre of mud was covered with sewage, which appeared to consist largely of blood.

The hotel, which was a large one, was nearly full of English visitors; and to show that the accommodation, though nasty in its surroundings was not cheap, I may add that I was asked six francs for a tiny room on the fifth storey, with a lean-to roof, a rotten window-sill, and the thinnest possible partition separating me from a waiter,—there being no other room vacant in the hotel that I could have.

It is not difficult to imagine that a person out of health, after a long railway journey, and perhaps upset by a sea voyage, putting up in such a locality as I have described, might soon pay the penalty for it by becoming ill. We know that the internal sanitary arrangements of foreign hotels are usually bad enough, but few can have such bad surroundings as this one; and considering the harvest the proprietors make out of the English, and that half their visitors are English, I think it is time they should realise the necessity of providing for their comfort and their health.

I am, Sir, yours obediently,

Lynn, Aug. 28th, 1876. WALTER G. WALFORD.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Humphry, Cambridge; Prof. Longmore, Netley; Dr. Coales, London; Mr. Parry; Mr. Goodridge; Mr. Gunn, Ballarat; Dr. Bond, Gloucester; Mr. Hunter, Aberdeen; Rev. R. B. Somerset, Cambridge; Dr. Macadam, Edinburgh; Mr. Murphy, Cahir; Mr. Bell, St. Kitts, West Indies; Mr. Livingston, Jarrow-on-Tyne; Mr. Lewis, Birmingham; Messrs. Boucher Brothers, Belfast; Mr. Quinton, Newark-on-Trent; Mr. Moulding, Liverpool; Mr. Enson, Belper; Mr. Woodward, Edgbaston; Mr. Borchert, Netley; Dr. M'Enery, Cerne Abbas; Mr. Castillo, Cordova, Spain; Mr. Morris; Mr. Anderson, Newtownlimavady; Mr. Sealy, Brant Broughton; Mr. Tuck, Seaford; Mr. Jolley, London; Mr. Ottaway, Salisbury; Dr. Williams, Swinton; Mr. Palmer, Madeley; Mr. Flinn, Brownhills; Dr. Thompson, Leamington; Messrs. Savory and Moore, London; Mr. Lang, London; Mr. Rutherford, Newcastle-on-Tyne; Dr. Fisher, London; Mr. Tuson, Bareilly, India; Mr. Woolhouse, Sheffield; Mr. Windover, Huntingdon; Mr. Bramwell, Newcastle; Dr. Smart, Haslar Hospital; Mr. Wimberley, Coventry; Dr. More, Rothwell; Dr. Thomas, Glasgow; Dr. Aldridge, Plympton; Dr. Fawby, Tralee; Mr. Wilson; Mr. A. Wright, Finchley; Dr. Neale, London; Miss Griffith, Ulverston; Mr. Simpson, Islington; Mr. Evans; Dr. Coskery, Baltimore; Mr. Walford, Lynn; Dr. Nicholls, Chelmsford; Major Burgess, Society of Arts; Dr. Dickinson, Liverpool; Dr. Hodge, Sidmouth; Mr. Wallace, Hackney; Mr. Walker, Glasgow; Mr. Hicks, London; Mr. Jackson, London; Mr. Dean; Mr. Groves, Bradford; Dr. Gray; Mr. T. Hughes, Bath; Dr. Risdon, Wells; Dr. Cobbold; Mr. Reed; Mr. Pollard; Mr. Van Abbott; Mr. Fuller, Wolverhampton; Dr. Harris, Chorley; Dr. Irving, Castle Douglas; Dr. Eddowes, Shrewsbury; Mr. Craddock, Shepton Mallet; Dr. Keay, Melrose; Mr. Colton; Mr. Fitzgerald, St. Ives; Mr. Barnes, Faversham; Mr. Lindsay, Aberdeen; Mr. Johnson, Tickhill; Dr. Curnow, Penzance; M.D., Marbery; The Director-General of the Army Medical Department; Et tu Brute; Militia Surgeon; J. P.; Sanitas, Wells; H. Y., Deal; Mashew; Beta, Edgware; Medicus Consulte Accusatus; Indignant; Marine; Æsculapius; The Editor of *Public Opinion;* The Registrar-General of Edinburgh; A Subscriber; M.R.C.S.; A. M. Q.; F. H. S., Dublin; Mark; Tutamen; L.R.C.S., Rotherham; Finsbury; A Junior; Alpha, Surbiton; Benjamin; M.R.C.S.E.; &c. &c.

LETTERS, *each with enclosure,* are also acknowledged from — Dr. Burman, Wath; Mr. Best, Bilston; Mr. Mossley, Leeds; Mr. Young; Dr. Fleming, Sheffield; Messrs. King and Co., London; Mr. Howard, Buckenham; Messrs. Morris and Cooper, Ross; Mr. Ward, Canterbury; Mr. Draper, Kensington; Dr. Walters, Reigate; Mr. Eberle, Essingwold; Mr. Souter, Holloway; Mr. Hale, Chesterfield; Mr. Richards; Mr. Harris, Hackney; Mr. Elliott; Mr. Thomson, Frisinghall; Mr. Robertson; Mr. White; Dr. Crabb; F. H.; Medicus, Denbigh; M. C. M., Godalming; C. C. B.; Vaccinator; Medicus, Petworth; X. J. C.; Medicus, Banbridge; R. A. M.; Medicus, Fulham; J. D., Notts; X. Y. Z., Grimethorpe; J. F., Ipswich; M. B., Blackpool; Argus, London; C. G. B., Norwood; N. E., Coltishall; A. O., Walthamstow; Medicus, Kilburn; A. B., Swansea; Peregrinus; E. P., Winforton; M. B., Glasgow; Graduate; Partner; A. B., Cheltenham; H. G., St. Leonard's; D. R. A.; S., Arundel; M. W., Bebbington; X., Camberwell; Alpha; Medicus, Cape Town; N.

Newcastle Chronicle, Western Morning News, Tavistock Gazette, Cork Constitution, Manchester Guardian, St. Pancras Gazette, Surrey Advertiser, Welshman, Sussex Daily News, Scotsman, and *Scientific Press* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, AUG. 31ST, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Aug. 25	29·99	N.E.	48	54	102	63	47	...	Overcast
„ 26	30·04	N.W.	51	55	95	68	47	...	Raining
„ 27	29·71	N.W.	53	63	105	67	46	0·07	Overcast
„ 28	30·03	W.	54	58	102	67	51	...	Overcast
„ 29	29·68	W.	59	63	83	70	57	0·12	Cloudy
„ 30	29·78	W.	55	60	108	70	52	...	Cloudy
„ 31	29·18	W.	48	51	105	...	47	0·16	Overcast

Medical Diary for the ensuing Week.

Monday, Sept. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 6.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 9.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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